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FARM NOTES.

CLOVER SEED AND SEEDING.

It will soon be time to sow clover seed, and we are in receipt of numerous inquiries as to where the best seed may be obtained, how to know when seed is free from obnoxious weed seeds, also when and how we sow.

Many of the leading seedsmen and dealers now sell purer seed than was the case a few years ago. There has been a demand for such seed from our best farmers, and seedsmen are anxious to supply the demand.

However, it is true that for many years some dealers and seedsmen, who hardly claimed to be honest, practiced buying and mixing the best seed with that of an inferior quality and selling the mixture for prime seed. Many farmers were deceived by the advertised classification and quotation, and ultimately a demand arose for an improvement in this line.

Many of us now buy extra cleaned seed, and we secure it from a dealer or seedsmen who will guarantee that his seed is pure, direct from the grower, and has not been mixed with that of an inferior quality.

For several years we have been well satisfied with our clover seed. We find it usually of very fine quality, so far as size and color of the kernels are concerned. The germinating power of a certain number of seeds taken at random, repeatedly, shows but few seeds lacking in this respect.

We buy our seed from the samples furnished, and the seed is guaranteed to be in every respect fully up to the sample in quality, purity and color. We have received a sample of the finest seed we ever saw. If several bushels can be secured, of such fine quality as the sample, we shall be pleased indeed.

We are asked regarding the machine we use. It is advertised in the FARMER. We have used ours for six or eight years.

As to the proper time for sowing: We prefer to do this in the latter part of February or first ten days in March. Much depends on the season and weather, of course.

The most of our soil is a mixture of clay and sand loam. On such soil there is more of less heaving by frost at this time of year, if the ground is nearly bare. When it first commences to break up and freezes and thaws alternately day and night, we have what is called a "honey-combed" surface.

This action of the frost, when the surface soil is well saturated, being frozen hard beneath, converts the upper inch or two of soil into an almost perfect trap to catch and cover the clover seed. This honey-combed condition is apt to be more perfect during the first of the season of alternate freezing and thawing.

Then is the time to sow clover seed, in our latitude, and on clay loam soils. On sandy soil we should generally prefer to wait until the ground settled, than sow and harrow the seed into the soil with a spike tooth harrow or a patent weeder.

One trouble with clover seed failing to catch has been that it was not well covered before germination. We are referring now to seeding on wheat ground.

On a honey-combed surface we can sow seed the first of March, all other conditions being equal, and expect to have the seeds well covered with the alternate thawing and freezing which follows during the next few days.

The seed will not germinate, generally, until permanent warm weather comes on. There is seldom any danger in this early sowing, as a certain high temperature, 60 to 65 degrees, must be steadily maintained

for some time to warm the soil about these deeply covered seeds to secure germination. Of course we have had such a condition, about one year in six or eight, in which there was some danger from early sowing, if followed by protracted and severely cold weather.

The best time to sow is just as early as one can see, on a clear, still morning, when no wind is stirring. The writer sowed some seed last spring on such a morning, sowing seven acres, while the rest of "our folks" were milking the cows. After breakfast we sowed four or five acres more, when it began to get muddy and we quit sowing. By taking advantage of such mornings the seed can be well covered. We would not sow in the mud, if we could possibly help it.

We have sown both medium and mammoth clover, as well as alsike. In fact, we prefer a mixture, as Dr. Beal advocates. We shall sow somewhat thicker this spring, as the ground to be seeded is of lighter soil, and been "run" the most of any field on the farm. We think about three bushels on 18 to 20 acres sufficient—though much depends on circumstances.

CRIMSON AND MEDIUM CLOVER.

Will someone please give their experience in sowing crimson clover in the spring? How early should it be sowed and how much per acre?

I have six acres of potato ground that I plowed last fall, and if it is advisable would like to sow to crimson clover in the spring.

I also have a peach orchard where the ground is nearly all taken up with trees. Would it be well to sow with crimson clover, or might it hurt the peach crop?

I also prepared 30 acres of ground last fall to sow to medium clover without any other crop with it. I believe that is the only way to get a good catch on sandy soil that has been pretty well run down.

GEORGE SCHNEIDER.

Crimson clover is not usually sowed in the spring, but during July, August and even September. We should advise you to sow your potato ground to June or red clover, but some of our farmers have secured a fair growth of crimson clover as a catch crop to turn under, under the same conditions of treatment you suggest. If you try it, let us know how you "come out."

What do our fruit farmers say to the query in third paragraph? Please reply soon.

Your plan of sowing clover alone on your 30 acres prepared last fall is excellent. Read Dr. Beal's recent articles on Clovers and Grasses, and try a mixture of clovers for this experiment. Don't forget to report results to the FARMER.

For the Michigan Farmer.

SOWING GRASSES AND CLOVERS.

A Mixture of Eight Sorts of Grasses and Clovers will yield much more than either one of the best when sown by itself.

As recently mentioned in these pages, I have persistently urged the farmers for twenty-five years to sow a few more kinds of plants for meadows and pasture, instead of placing all dependence on clover and timothy.

The second point presented has been to advise sowing four to ten acres or more of the best kinds to occupy the ground, all thriving together. "Why?" comes the query from every direction. "Why not by experiment find out one or two of the very best, and then use them entirely, instead of troubling ourselves to buy or raise so many kinds?"

Because, long experience and experiments in Great Britain, Germany and France have demonstrated beyond question that larger yields of good forage can thus be se-

cured. Many kinds will occupy the ground more completely than any one or two.

The diverse habits of roots, stems and leaves, enable different plants to supplement each other in various kinds of soil. Each species has some special niche to fill; each one is better adapted for some purpose than any other. Some stand dry weather better, others stand continued rains better.

Then, too, the various tastes of cattle, sheep, horses and swine are better subserved. From the nature of the case we ought not to expect any one model grass or clover to be best suited for all purposes. This is just as true of forage crops as it is with roses, apples, peaches, strawberries or cabbages.

In making selections for sowing, the farmer must be guided by the climate, the soils, whether wet or dry, light or heavy. He will be guided by the uses to which he puts the field, whether for meadow, or pasture, or both, whether it is to remain seeded for some years or for one or two years. The location, markets, and supply of labor will also be considered.

It will be the cheapest, counting just cost only, to sow only seeds of grasses and clovers which cost but little to seed an acre, but in the end this may not be true. Farmers who have a large area of meadow will find it better to have the grasses of different sorts in different meadows than they may not all need cutting at the same time, thus prolonging the season for haying.

For meadows it is right to have grasses blossoming about the same time, but for pastures a succession is desirable. In case a field is to serve for meadow, then as a pasture, the same selections of seeds would not be equally well suited for both uses. A compromise is necessary.

I give a few notes taken from my report of experiments made in 1889, 1890, 1891, to test the relative yield of grasses and clovers. Excepting what is called "old sod," the land was broken up two years previous.

In each case the plots were mowed when it would seem best to mow them, twice a year. Three or more separate square rods of each was mowed and I give the average yield of dry matter for the years 1890 and '91. The land was rather stiff clay and thoroughly tilled:

	Pounds.
Meadow fescue (only one plot).....	15.
Long seeded "old sod".....	16.
Meadow foxtail (only one plot).....	16.50
Tall oat grass (soil unsuitable for this).....	16.50
Long seeded "old sod".....	18.
Alsike clover.....	19.
Red top.....	19.37
Long seeded "old sod".....	20.75
Meadow foxtail and meadow fescue.....	23.
Long seeded "old sod".....	23.41
June grass.....	28.33
Meadow fescue and perennial rye grass.....	30.50
Orchard grass (not adapted to clay).....	31.50
Alfalfa (required much weeding).....	36.
Slender wheat grass.....	36.87
Fowl meadow grass.....	50.83
Red clover.....	53.25
Timothy.....	54.91
Mammoth clover.....	57.50

A mixture of eight sorts—the average of three plots: Red clover, mammoth clover, timothy, tall oat grass, orchard grass, tall fescue, fowl meadow grass, slender wheat grass.....

You will see that the average of the mixtures yielded about one-third more than the best of the single sorts. It could not be expected that this would be the result in all similar experiments. W. J. BEAL.

MICH. AGRICULTURAL COLLEGE.

For the Michigan Farmer.

POWER MILLS.

The article from Joseph E. Wing, in the FARMER of Jan. 16, was very interesting to me, for it was on a subject I have studied on for a long time. I have erected power mills in almost every conceivable manner, and my experience has taught me very differently from what Mr. Wing's has.

In the first place, I would not have one unless it was on the barn, for many reasons. First, to have it where the stock are, so I can cut the corn fodder and hay for the horses, and the oat straw that is usually put in the barn to feed the cattle. I think there is as much saved in running coarse feed through the cutting box as there is in grinding grain.

Second, it is nearer the granary, and grain does not have to be bagged to get to the grinder, and after being ground to get to the feed bins, and then if you wish to pump water with the same mill, and your well isn't more than 35 feet deeper than the barn floor, or the basement floor, you can set your pump right at or near the mill mast, lay your pipes from it to your well, and suck it with the pump. It takes much less piping, and the less you have and get the water where you want it, the better and cheaper it is.

Have placed a pump in this position on a basement barn that is 30 feet higher than a spring that is 35 rods away, and a number of men owning well-drilling machines said it could not be made to work; but we started it three years ago last fall, and it worked to perfection, and has ever since.

Now as to cost. I would not put up a mill on a barn that would cost more than \$90 or \$100. That would be a 12-foot wheel on a mast. I say a mast, because I would not take a geared mill on a steel tower as a gift. They look nice, and are nice, but are too noisy to suit me.

A steel tower is like a sounding board in a musical instrument; it vibrates every mesh of the cogs and makes life miserable to all within a half mile of it. (If the wind is right).

I agree with Friend Wing in one thing, and that is, be sure and get your mill high enough. You can't get it too high, though you may get it higher than need be. I always aim to get them at least 15 feet higher than any wind obstruction within 500 feet of it. On the average barn it takes from 40 to 50 feet of mast.

Another thing I want to speak about is the grinder. I see Mr. Wing uses a foot-gear grinder. I used to think this was the only grinder there was for a windmill, but I was constantly annoyed by the breaking of these grinders caused by nails, nuts, bolts, and all kinds of scrap iron getting into them; but I have found one that is proof against breakage. It is run by a belt from a foot gear. It has a safety spring on it that will allow the grinding plates to spread apart and let this foreign matter through without any damage.

The geared mill I would put up would be a 12-foot galvanized steel wheel on a 40 or 50-foot mast, running from the barn floor out through the roof. This, with shafting for the same, with a foot gear and grinder, would not cost more than \$125, all erected in running order, and if it is placed on the barn I would place it just to one side of the barn floor in the bay. Make a room, say 4x8 feet, alongside of the floor.

If the mill is on the barn it isn't very often one wants or needs to put up extra bins and an elevator, although one can, after his mill is up, add to it as much machinery as he likes.

Now I do not advise any farmer to go to the expense of even \$125 for a mill in these hard times, if he cannot save at least \$50 a year on his own place, and if he has a well-stocked farm of 80 acres he can do this, and also do \$50 worth of grinding for his neighbors. We all live and learn. Let us get the views of others on this subject.

OAKLAND CO., MICH. W. W. SEELEY.
[Farmers are interested in all kinds of

power that may be applied to practical farm use. In our opinion there is nothing better than the modern anti-friction tread power and the steel geared power windmill.

Our grinder is similar to the one Friend Seeley describes. Although we take pains to see that no metal or stones get into the feed, sometimes such "foreign" matter does reach the grinding plates. Then we find the safety spring of great value in letting the stuff through at once, when the plates are instantly closed again for regular work.

Our two-horse tread power does not furnish quite enough power to grind cobs or ear corn as we would like to do occasionally. We made a mistake in not getting a three-horse tread. If we had more power we could do considerable custom grinding, and a 14-foot geared windmill would answer all requirements—when there was a good breeze.—Ed.]

For the Michigan Farmer.

GROWING ROOTS FOR FARM AND MARKET.

A black loam soil or marsh land, large areas of which are found in Sanilac, Tuscola and Huron counties, (commonly called the Thumb of Michigan) and in many other parts of this State, is especially adapted to raising various kinds of roots. Where this kind of soil cannot be had, new land might be used to advantage because it derives its richness partly from ashes while it is being cleared. In order to have a good yield, carrot, mangold and parsnip seed should be sown as early as possible; but turnip seed should be delayed until about June 20th., to avoid the operations of that troublesome insect, the fly that destroys the young plants. Turnips and other kinds of roots may be raised conveniently if the seed be sown broadcast on new land and many fine specimens may be secured from a small area of land. When parsnips are intended to remain in the ground over winter, a dry sandy soil should be selected, on account that surface water standing in fall or spring is likely to freeze or otherwise injure the roots so as to render unfit for market.

Parsnips should be thinned to a certain extent while they are young, to allow the remaining ones to grow larger and occupy their places. This, you may readily see, applies to parsnips where the seed has been sown in drills. Mangolds furnish good feed and are greatly relished by cattle. They are especially valuable for feeding to milk cows, as they largely increase the flow of milk. The mangold is a very profitable root to cultivate, as it generally yields a large number of bushels to the acre. The yellow carrots are commonly used on the table by many prominent farmers and a grated carrot is of great value to any lady to improve the color of butter in the winter months, instead of using the so-called butter colors which are likely to contain more or less poison and the results of which must be suffered by innocent purchasers of such mixtures. Turnips are of considerable value for cattle but should always be given to milk cows immediately after milking. If given before milking, turnips generally cause the milk to taste bitter.

Huron Co. WM. E. McMULLEN.

GROWING POTATOES—EFFECTS OF GREEN MANURING.

From our Paris Correspondent.

As the excessive production of potatoes has led to depreciated prices for pigs, so the late compromised—by the wet season—potato harvest has caused, and will continue to do so, the price of tubers, especially if intended for exportation, to be dearer; hence the necessity of the best means to preserve potatoes. Austria-Hungary is reputed for its success in this respect. It is the silo plan which is adopted, but the silos are small and circular. The rectangular silo is adopted for large quantities, but, as a rule, several small pits are preferred to a long one. The trench, made in ordinary soil, is 40 inches wide and 15 to 24 deep; if the sides be pliable they are sloped at 45 degrees. If possible, the tubers are exposed to dry one or two days before being pitted, and any bad tubers are rejected. The bottom of the trench is lined with a layer of dry brambles, ashes, charcoal or straw; when filled, a little straw is spread over the tubers, and upon this, dry, dead leaves, heath or fir-needles; the excavated soil forms the roof, that ought to be 14 inches thick to protect against frost. The rectangular pits are double the dimensions of the others, and are provided with wooden ventilators five inches wide and seven feet apart; a little tow or straw is placed in the orifice when rain or frost is expected. The hand or a thermometer is plunged down the chimney to ascertain that the temperature is not above 38 degrees F.; if it is, the pit must be opened and the heat allowed to escape. Thus stored, the tubers do not lose in weight, nor are their nutritive qualities altered; they do not send out shoots, and if well pitted and cared for, will turn out for market as fresh as the day they were closed.

Increased attention is being given to the potato disease and the investigations connected therewith made during the late wet season. M. Alex. Lorrain, a Belgian agricultural chemist, accepting the disease as due to the parasitical mushroom *Peronospora*, which sends its threads or mycelium, like darts into the tissue of the potato plant, destroying its organization, spotting and

drying the leaves, killing thus the lungs of the plant, stopping its physiological functions, and averting the development of the tubers. It is accepted that it is by the mycelium when it "spears" the tubers, and there deposits its spores or seeds, as insects do their eggs, that the disease is propagated, hence, kill the enemy in the seed tuber. How? M. Mineur has tried a plan since 1890, with invariable success. He selects an old petroleum barrel; pours therein 37 gallons of water; he dissolves separately, in a little warm water, one ounce of bichloride of mercury; in order to color the water and so guard against accidents, 14 ounces of sulphate of copper are also dissolved in lukewarm water; both chemicals are then poured into the barrel or vat; the tubers to be planted are placed in a basket and dipped from four to five minutes in the steep; after the immersion, the tubers are placed in a heap, as they leave the vat, and can be at once planted. They can rest in the heap as long as eight days. The result of this treatment has been tested, under every form of control and comparison, with success. In addition, the yield of tubers has been increased.

Every farmer recognizes the value of clover, when plowed down, as a manurial preparation for wheat, etc. Indeed, green manuring is as old as the hills; the Romans grew white lupin, and, when in flower, plowed it under. The same practices are in vogue to-day; we know the reason why clover, lupin and other leguminous plants enrich land; they are able to draw in unlimited supplies of nitrogen from the air—the inexhaustible storehouse of nitrogen; that chief of fertilizing agents has a home in the roots and leaves of lupin, etc.; besides, its roots penetrate deep and wide into the soil, and so tap new layers, or stores of phosphoric acid—perhaps, and of potash, certainly. The salient fact of progressive agriculture during this expiring year has been the impetus given to green manuring, and especially on sandy soils, by the growth and plowing down of the blue and white lupin—the yellow variety is not much in favor. This mode of manuring is very popular in the north of Europe. It is to M. Schultz, of Lupitz, who has for forty years labored to reclaim his estate, that the solution of the question is due. The soil was composed of a fine, white sand, very porous, and that a strong wind swept into sand storms. Naturally it was extremely poor, covered here and there with heath, affording hardly a bite that even Algerian sheep would consider worth the trouble of living to nibble. To-day that Little Sahara is rich in humus, has become black instead of white; there are no more cyclones of sand, and in dry seasons the crops are as excellent as on the best soils. The facts merit redrawing home.

And how has this transformation been effected? By simply sowing lupin as a manure catch crop, between a cereal and a root crop. Potatoes cultivated on areas of the same land, but having as fertilizers only farmyard manure and green lupin, while the former produced but five tons of tubers, the latter yielded nine. And the roots of the potatoes, followed perpendicularly down, down into the subsoil, the orifices opened by the decayed tap roots of the lupin, while the roots of the potatoes, in the case of farmyard manure, remained confined to the surface soil. When the rye is sown, it receives doses of a mineral manure. When the rye is in flower, the lupin is sown, or is scattered on the stubble, where it rapidly shoots up, and on blossoming, about the eve of frost, it is plowed down and in March the potatoes are planted. The National Commission of French Agriculture, in presence of the changes effected along the Baltic shores of Prussia, intend to adopt the Lupitz success for the sands of Gascony.

THE USES OF A HARROW.

BY HENRY STEWART.

The pulverizing of the soil is indispensable to the safe germination of the seed and its safe growth. It goes without saying that grass and clover seed will surely fail to catch if the soil is not made fine and mellow, and the failure of this is the reason why the seedling so often fails, especially in a dry spring.

The use of the mower and harvester makes it indispensable that the land should be made level. There is no other harrow that does this work, or is purposely made to do it than the "ACME." It is provided with a bar in front by which the soil is scraped down to level ridges and fill up hollows.

One other valuable point of the Acme Pulverizing Harrow, Clod Crusher and Leveler should not be missed which is that for covering the seed it serves the purposes of a drill, for the coulters—like small plows—turn light furrows as they pass over the seed, and thus cover it safely against the risks of a dry time occurring after the seeding. This is invaluable for the security of the grass and clover, which seldom fail to make a successful catch when the "ACME" Harrow is used for this purpose. And as there never will be a possibility that man will be wise at all times, and it is ever a frequent reproach upon farmers that they greatly injure their implements by exposing them to the weather, this harrow—being wholly of metal—may stay out of doors all the time without the least injury; for the whole lifetime of the owner if he wishes; and being so constructed it is practically everlasting for use, nothing if anything being needed more than to replace the coulters. A duplicate set of these got with the machine will serve for extensive use a whole lifetime.

Out of weakness comes strength when the blood has been purified, enriched and vitalized by Hood's Sarsaparilla.

For the Michigan Farmer.

TEN-CENT POTATOES AND SOME OF THE CAUSES.

We do not have to investigate long or go much below the surface to find abuses of the laws of production, a singular shortsightedness on the part of the regular producers of potatoes, and coupled with the natural tendency of buyers to use anything to their advantage to depress the market, there can be but one result, *poor products and low prices.*

Michigan potatoes are not only getting, but have already obtained a very unsavory reputation in the potato markets of the country, on account of the continual putting on the market of unripe stock, green and altogether unfit for table purposes.

The prices paid, finally, for such stock in reality sets the price to the producer of first-class, ripe stock, and cheats him out of what is the profit, the last few cents; and not only that, but he may consider himself indeed lucky if he receives a sufficient amount to cover cost of production. Now, this part of the trouble can be easily avoided by the growers planting their potatoes early enough to mature. The object of late planting is to avoid trouble with potato bugs and the expense incurred through the proper care given. Now, there is no question whatever but what the grower who plants his late varieties in May, or not later than the first week in June, will harvest, one year with another, the largest crop of marketable tubers and also at the least expense per bushel. If Michigan is anything, naturally, it is a State that will produce potatoes that are excelled by no other state and equaled by but few. One of the most favored by climate, location and a soil that in some sections produces crops with so little trouble compared with potato land in other states, that I should think it would be an easy matter to make Michigan the banner potato state. In view of the overproduction of potatoes of late it might be advisable to decrease the acreage somewhat, giving more attention to raising those kinds that combine quality with appearance and yield. The best will be found none too good to grow for profit. With the production of a smooth, well proportioned, good quality crop, thoroughly ripe, the cause of complaint on the part of buyers and commission men will be removed at once and they will be obliged to pay the highest market price, without the quibbling and reductions made in the past, the undue advantage taken oftentimes of the shipper, and will place the potato trade on a sure footing, paving an easy road for Michigan growers to the first place in the production of potatoes.

Eaton Co., Mich.

For the Michigan Farmer.

GROWING SPRING WHEAT.

Through your paper I wish to make a suggestion to the farmers living in St. Clair Co., and north, perhaps across the State, or in all that part of the State where spring wheat used in former years to be a fair crop.

Oats, on account of the low prices have become almost a failure (—Ed.). One bushel of wheat is now worth about five of oats, and prospectively will be the coming year.

To all who have fall plowing done I want to advise to try a few acres of wheat this spring. Sow early as possible, if the frost is not all out, if you can get on the land.

Put in the wheat with drill, and use from 100 to 150 pounds of the best phosphate you can get, as that will not only give you more straw, but more wheat and ripen it from six to ten days earlier, and also prevent rust.

MACOMB CO. SETH LATHROP.
[Have any of our readers tried growing spring wheat in recent years? We think oats are not a failure, from a low price consideration. Our crop last year averaged 47 bushels per acre.—Ed.]

For the Michigan Farmer.

EXIT ON RAG WEEDS.

If a farm of eighty acres can be kept clear of these pests by spending, say three hours a year, of course it pays big. Yet I have done this very thing for thirty years. How? I pull them by hand. Took the pests by the forelock and kept at it. It makes me glad every fall to see how neat these fields look when so many are fairly black with the nuisance.

It is the same with May weed and mullein. But thistles come on from abroad; also dock in my clover seed. Although I fight these every year, it is only a partial success. The pests come principally from grass seed.

GRATIOT Co., Mich.

This issue of the FARMER contains an advertisement of P. P. Mast & Co., Springfield, Ohio. The cut in the ad. represents their Buckeye Adjustable Arch Cultivator No. 42. While the machine possesses all the merits of the well known Buckeye Cultivator, its especial merit is found in the Adjustable Arch. Every farmer knows somewhat of the difficulties encountered when it comes to cultivating narrow rows with a wheel cultivator. The arch of this machine is so made that it can be easily and quickly adjusted to any desired width. This is a great boon to potato growers, market gardeners, etc., and makes this an ideal general purpose cultivator. Write those people for a catalogue and tell them that you saw their ad. in the FARMER.

For the Michigan Farmer.

HANDLING ALSIKE CLOVER FOR SEED.

I would like to know when to cut and how to handle alsike clover for seed.

Last year we cut when part of the heads were black, some brown and the rest in the blow. We raked and bunched it as fast as cut, letting it cure out in the bunch. Ours was not filled well enough to pay for threshing.

GRATIOT Co.

J. B. GARDNER.

We cannot be certain from the above report why this alsike clover seed failed to fill properly. It may have been cut too green; still it would seem that a large part of it must have been ripe enough. It does not do to let alsike stand for seed too long, as when fully ripe it shells worse than red clover. Possibly the clover root borer was present and had something to do with its failure to fill.

Alsike is harvested and threshed in nearly the same manner as red clover. Being cut while the leaves are still green, rain after cutting does not injure it as much as red clover. It is allowed to lie and cure before being bunched up, being turned if necessary. It should be handled while slightly damp to prevent shelling.

Mich. Experiment Station. A. A. CROZIER.

For the Michigan Farmer.

SOMETHING ABOUT LIGHTNING RODS.

Noticing Dr. Kedzie's article on lightning rods and Mr. J. B. Stevens' request for more of that kind of talk, I give you herewith my lightning rod experience. In 1880 I built a basement barn, fruit cellar, root cellar, forest packing room, carriage floor, carpenter shop, stables, hay loft, etc., all under one roof. The building formed an L. The front, three stories high, is 44x52 feet; the L, two stories, 25x50 feet. In 1882 I filled in the L with a two-story, flat-roofed building making the block 52x124 feet. Before raising the bents of the second building I erected a lightning rod in the corner of the inner angle of the L. The rod was prepared and erected in the following manner:

A straight dry cedar tree was procured which, when dressed like a liberty pole, was 16 inches in diameter at the butt, four inches at the top and 72 feet long. To this was stapled, with strong iron staples driven into the pole, a three-quarter-inch gas pipe (three-quarter-inch bore) the whole length of the pole and projecting eight feet above. Inside the pipe was a five-eighths-inch iron rod running the whole length of the pipe and attached at upper end. The vane and points were attached to this. A hole six feet deep, four feet in diameter was dug for the base and the pole erected. Before filling the hole with dirt a three-quarter-inch iron rod ten feet long was driven down by the side of the pipe to a depth of eight feet below the bottom of the pole and then stapled to the pole and pipe. Two wheelbarrow loads of old scrap iron was then spread over the bottom of the hole and in contact with the pipe. This was to furnish a larger dispersing surface in the ground than the rod alone would afford. The rod itself runs from 14 feet below the base of the building to about 20 feet above through the center of the block. The floors and roof are made tight around the pole. Then a two-stranded fence wire of the saw-tooth pattern was stapled to the ridges and, running over the ventilator of the building, was brought down and coiled around the rod just above the roof. There is no insulation, the aim being to bring as much of the building in contact with the conductors as possible.

It is now about fifteen years since the rod was erected. I have no positive evidence of its having been struck by lightning but once, though I have suspected it on three other occasions in night storms. This particular case was last summer one day about sunset.

A violent thunder storm was raging and I was sitting on the veranda about 400 feet distant facing the rod and watching the storm.

A blinding flash and a deafening crash came simultaneously and the lightning streamed, or seemed to stream, from the clouds to the rod and there it disappeared. It was the heaviest discharge I have ever seen. I went at once to see the effect: the rod was cool; nothing had been disturbed around the rod on either floor. Whether the bolt would have descended at this particular place if the rod had not been there, no one can tell, but one thing is certain, whether it came on invitation or uninvited, the rod showed its capacity to take care of it.

In putting up the rod, I had this principle in view: Lightning, like frail humanity, will follow the line of least resistance. So I gave it a "good road," double tracked from all parts of the building to the ground below.

J. G. RAMSDELL.

GRAND TRAVERSE Co., Mich.

The Lean All Steel Harrow, which is advertised in our columns, possesses much to recommend it. As indicated above it is constructed entirely of steel and contains no castings or malleables that are so likely to break. All bars, and the important corner braces are of angle steel. The top lever adjusts the teeth to any desirable angle enabling the operator to tear up the earth to considerable depth, or to smooth it on the top. This ease of adjustment, the arrangement of the teeth so they do not track, and the pliability of the sections, adapting themselves to all unevenness of surface, makes this an ideal smoothing harrow and weed exterminator. Write the Roderick Lean Company, Mansfield, Ohio, for catalog and prices, and mention this paper.

LIVE STOCK.

THE GALLOWAY.

This week we present an illustration of the Galloway, or Polled Galloway, breed in the shape of a matured bull, a noted prize winner in Scotland. It is a little finer in its points than the average Galloway—the form more compact, the back straighter, and the quarters squarer than animals of the breed usually show. It is, however, the standard to which breeders are working in improving their herds.

As compared with the Polled Angus as bred to-day, the Galloway is a coarser looking animal. It has a moderately thick and mellow hide, covered with a heavy coat of black glossy hair, which make ideal robes, and the skin of the young animals is used as a substitute for fur in the making of garments, and found to answer admirably. The hair is long, glossy, soft and wavy, and harsh or short-coated animals, or those which have the hair curled close, are discarded by the best breeders. In hardness, the Galloway will never have to take second place. His native home is mountainous and bleak, as a rule, and nature has generously fitted him to withstand its rigors by furnishing him with a coat well adapted to his environment. For the northwestern portion of this continent we should think the Galloway especially well adapted, and being polled, or hornless, his use enables ranchmen to get rid of the long branching horns, which may be good weapons for defense in a wild state, but are frequently used for offence in the pasture or while being shipped. The Galloway's weakest point, from a beef-making point of view, is a rather long back, which frequently droops below the straight line which commands itself to the feeder, while the quarter in such animals is shortened up, and it is apt to be coarse at the setting on of the tail. The best ones, of course, like our illustration, are free from these faults. In ability to make flesh fast, the Galloway averages well with other improved breeds, while the quality of the meat is not surpassed by that of any other. It is peculiarly fitted for grazing by its natural environment, and has always done well upon the western and northern ranches. It has a rugged constitution, does well upon rather scanty pastures, and in such situations will do as well as any breed known.

As to its history, it is a native of the province of Galloway, Scotland, which now comprises the two southwestern counties of Galloway and Dumfriesshire. It is also common in the county of Cumberland, England, just over the line from the two counties named. How the breed originated is too far back for history to reach. It is first mentioned about the time of the union of England and Scotland under James Sixth of Scotland and First of England; but the present century has seen the most efficient work done in the improvement of the breed through careful selection and more generous feeding. The Galloway is not quite up to the Shorthorn or Polled Angus in early maturity, the methods under which they are reared not promoting this to the extent it has been carried in the other two breeds mentioned. In quality of meat, however, no other breed can outdo the Galloway, their meat being finely marbled and juicy, and ranking as "prime Scots" in the English markets.

The Galloway matures when about three years old, under the conditions natural to them, and the younger animals are seldom housed during the winter season, the breeders believing it to be wise to retain their natural hardiness. Matured animals average 1,250 for cows, 1,650 for bulls, and steers about 1,550 at three years. This weight on cow and bull is for animals in breeding condition only, not in heavy flesh. The description of the breed, as given in the Galloway Herd-Book of Great Britain, is as follows:

Color: Black, with a brownish tinge.
Head: Short and wide, with broad forehead and wide nostrils; without the slightest symptoms of horns or scurs.
Eyes: Large and prominent.
Ears: Moderate in length and broad, pointing forwards and upwards, with fringe of long hair.
Neck: Moderate in length, clean, and filling well into the shoulders; the top in a line with the back in a female, and in a male naturally rising with age.
Body:—Deep, rounded, and symmetrical. Shoulder: Fine and straight, moderately wide above; coarse shoulder points and sharp or high shoulders are objectionable. Breast: Full and deep. Back and rump: Straight. Ribs: Deep and well sprung. Loin and sirloin: Well filled. Hook bones: Not prominent. Hind quarters: Long, moderately wide, and well filled. Flank: Deep and full. Thighs: Broad, straight, and well let down to hock; rounded buttocks are very objectionable. Legs: Short and clean, with fine bone. Tail: Well set on and moderately thick. Skin: Mellow and moderately thick.
Hair: Soft and wavy, with mossy undercoat; wiry or curly hair is very objectionable.

NOTES AND COMMENTS.

In a late issue of the FARMER a correspondent objects to sweet corn for pigs after it has matured, as it is hard to digest, which is something worth considering. Many of our farmers find it good for small pigs while the kernel is still in the milk. The little fellows quickly learn to eat it, and it makes a valuable addition to the food supplied by the mother. But a little watching of the pigs while eating will show that this is a wasteful way to feed. The kernel is

not separated from the cob. The animal can do little more than break the kernel and suck out the liquid, consequently much is lost. It does not need a close examination of the cobs that are left to prove that a large portion is unavailable. This method may be a good one when there is a large supply of sweet corn and it is cheap, but in the majority of cases, can we afford it?

In this connection we recall the method for raising pigs followed by a prominent stock breeder. As soon as they began to eat they were fed on a bread made of coarse flour or meal. This was mixed with sweet milk and fed in a place where the mother could not reach it. A small quantity of cheap molasses was added "to attract the noses of the pigs," we were told. In ten days, the owner said, the little fellows would be eating the mess, when growth would be rapid. At three months old pigs could be made to weigh 100 pounds, at six months 250, and at eight months over 300. The flesh was of better quality than that of animals raised in the usual way. New milk was preferred, and fed warm. Cob meal was used as being less concentrated than clear corn. The chief point was to get started well, and much depended upon having the right kind of stock. The results obtained by this feeder showed what could be done with animals that will admit of forcing, but it would not do in all cases, perhaps with only a small proportion of the pigs raised. The young pig has an appetite beyond its capacity. If fed too much it is liable to become overfat and die, as good feeders have frequently found to their sorrow. Forcing is an unnatural process, and for that reason requires skill and judgment. Much depends upon the animal and the food, and perhaps no less upon the feeder.

A cosset is not considered a desirable animal on a farm, and for good reasons. It will not mate with the other sheep, is always where not wanted if it can get there, and makes itself a nuisance generally. But last year one of these unfortunates showed what might be done with mutton lambs in general. It was a Shropshire-Merino and a fair specimen of that class, a late spring lamb. After being fed on skimmed milk during part of the summer it was left to shift for itself. By the middle of fall it surpassed the others of the same age and brought a good price for the market. This suggested a question in regard to feeding lambs in that way. Would it not be profitable for a small farmer who keeps cows to raise a few lambs and feed them the skimmed milk? The milk required for one calf would be enough for a flock of a dozen, when helped out by the old sheep, and by the time for selling in the fall they would bring a much greater return. "Too much trouble," is the prompt objection. Yet they readily learn to drink, and if left with the dams need not be a serious inconvenience. A nice bunch of spring lambs is desirable property in the fall as the market seems to be always ready to take them at a fair figure, though other meats may be cheap. Hampshire, Oxford and some others among the medium and long wools grow rapidly, and would be out of the way before winter feeding began, while the few needed for breeding could be kept in a small place. Perhaps a little practice would modify this theory, but we should like to see some one who had tried it.

The importance of clover hay is often insisted upon as a fodder for sheep. Some find it difficult to do without it, and have suffered considerable injury by the shortage in the clover crop during the past four seasons. We do not mean to disparage the value of clover, but think too much stress has been put upon it. We have seen good flocks that did not receive hay at all, nor rape, nor any of the other substitutes in whole or in part for clover. They were given grain, straw and cornstalks, and if they did not thrive it was hard to see what was lacking. One feeder we knew gave his flock of Merinos straw and grain twice a day with stalks at noon, from fall till spring, and the animals would be fit for the butcher at any time. One year a pen received nothing but oat straw with grain, and the owner declared the animals went through the winter in the best condition of any in his flock. But they had grain and plenty of it; not corn alone, which was considered "too strong," but mixed with oats in the proportion of two to one. Wheat straw was preferred to oats, and if a little rusty, so much the better. As spring approached they were given bagas or potatoes cut into small pieces. At lambing time, which this farmer preferred to come in May, the ewes received oats, with little corn. When the flock was first turned out to grass, it would be fed hay at night, as then straw would not be eaten much. The ewes raised their lambs well, and the sheep had a good name for size of carcass and weight of fleece.

It is interesting to notice the change that has taken place in fat stock during the past two centuries. We quote the following from Morrow and Hunt's book entitled "Soils and Crops": "The average weight of cattle and sheep sold in 1710 in Smithfield market, which, in many senses, bears the same relation to England as the Chicago stockyard market does to America, was: Beeves 370 lbs., calves 50 lbs., sheep 28 lbs., lambs 18 lbs." Such figures are almost incredible when compared with those of the present time. The great increase in size has been largely brought about, it is claimed, by improved methods in cultivating fodder plants and grasses, but probably still more by scientific feeding and breeding.

F. D. W.

STOCK NOTES.

It is useless to ship piggy sows to market. They are not allowed to be sold, and are placed in quarantine until they farrow. Keep them at home or give them to someone to care for, if you don't want to do it yourself.

The number of hogs packed in the west from November 1st, the beginning of the winter packing season, until the end of last week, was 5,410,000; for the same period last year the number was 5,720,000. The falling off in numbers was pretty even at all the principal points, showing that the shortage is general, and not confined to any particular locality.

A CHICAGO journal says: "Some part of the trade wants big heavy hogs—say 400 to 500 lbs. average, known as 'fat backs' in the packing business—and we note several sales to-day at \$3.20@3.30; one lot of 99, averaging 320 lbs., at \$3.17½@3.27½." As good light hogs sold the same day \$3.40@3.45 per 100 lbs., we don't think the "want" of those parties was very strong.

W. J. McKee sends the following regarding the prevention of hog cholera: For a preventative to keep the cholera away from hogs, use charcoal, copperas, saltpeter and sulphur, with a good deal of salt, and give them a dry, warm nest to sleep in. I was raised on a farm, and have always kept hogs after I was old enough to do for myself, and I have never lost a hog with the cholera yet. I am 64 years of age.

J. H. Eno, of Ingham County, sends the following recipe for killing all kinds of lice: Take one pound of quassia chips, steep in two or three pails of water, and wash the animals all over. This must be done on a warm day. It is perfectly harmless and is sure death to lice. I have never had to wash horses or cows but once, as it kills all nits as well as lice. I have dipped chickens in the water with good results. These chips can be got at any drug store for from 15 to 30 cents a pound. Don't be afraid to try this.

At the 22d annual meeting of the national Ayrshire Breeders' Association, held at Albany, N. Y., the election of officers resulted as follows: President, L. S. Draw, Burlington, Vt.; Vice-presidents, Obadiah Brown, Providence, R. I., H. R. C. Watson, Brandon, Vt., B. C. Sears, Blooming Grove, N. Y., John Stewart, Elburn, Ill.; Secretary, C. M. Winslow, Brandon, Vt.; Treasurer, Henry E. Smith, Enfield, R. I.; Executive committee, for three years, J. D. W. French, No. Andover, Mass., John Bratton, White Oak, S. C. It was voted to offer special prizes at the leading fairs for butter fat yields on the fair grounds. The report of the treasurer showed the association to be in a flourishing condition, with \$2,597.70 in the treasury.

Veterinary Department.

CONDUCTED BY DR. W. C. FAIR.

Advice through this department is free to our subscribers. Each communication should state history and symptoms of the case fully; also name and address of the writer. The initials will only be given. When an answer is requested by mail it becomes private practice, and a fee of fifty cents must accompany the letter.

BONE SPAVIN.—I have a mare about twelve years old that has a bunch on the front of the hock joint. It has been there about a year. She goes lame when she starts. J. K., Plymouth, Mich.—Give her rest and blister over the entire joint with caustic balsam once every ten days.

CHRONIC GARGET.—I have a Jersey cow which lost her right front teat and has not given milk from same with her last two calves. She is due to calve shortly, and since drying her up the hard formation in udder has reduced in size and is lower down and hard. Can it be removed? O. K. F., New Albany, Mich.—Apply tincture of iodine to swelling once a day.

DOG TROUBLED WITH DEAFNESS.—I have a bird dog about seven years old. For the past three months he has been gradually losing his hearing. Can anything be done for him? A. S., St. Charles, Mich.—His ears may be filled with wax or dirt. Drop one part fluid extract of belladonna and twenty parts sweet oil into ears once a day. Keep him in a warm place.

PARTIAL PARALYSIS OF HIND QUARTERS.—I have two hogs, six months old, that have lost the use of their hind parts. They eat fairly well. They were taken suddenly. Have been feeding corn on the cob. D. W., Nashville, Mich.—Give one dram powdered sulphate of iron and one dram ground gentian in feed twice or three times a day. I think worms may be the cause of their sickness.

HOUD LOST HIS VOICE.—I have a hound that became sick about two weeks ago; first noticed it by his losing his voice. Then he took to vomiting which has continued more or less ever since. Had been feeding him pretty heavily before he got sick. What is the cause and cure? Can I restore his voice? W. F. W., Mayville, Mich.—Apply equal parts tincture iodine, alcohol and glycerine to throat once a day. Give muriate of ammonia and liquorice tablets three times a day. Your druggist no doubt keeps the tablets for medical purposes. The same dose as for man will be all right for your hound.

RINGBONE.—I have a half blood Percheron mare, coming three years old. When taken up from pasture late last fall she

showed no signs of lameness; after standing in stable on plank floor for about two weeks I noticed a swelling of the pastern joint and lameness. I have blistered twice but lameness does not disappear. F. N. B., Bangor, Mich.—Your filly has a ringbone. The blister you applied was not active enough. Try caustic balsam and I think you will meet with better results.

WRY NECK.—I have two lambs, one four days old and the other one day old; they have what appears to be wry neck and seem to suffer from epilepsy. They turn their heads sideways and upward, stagger and bleat a good deal as if in continuous pain. They appear very dull; one will sometimes roll over before he can get up and then will stand with nose pointed to the ceiling and head turned as if chond on side of neck had suddenly contracted. Is this hereditary or local, and is it curable? S., Wheeler, Mich.—Your lambs cannot be cured and made normal. However, you might keep them for a few months and market them to a butcher.

KNEE SPRUNG.—I have been anxious to find a match for my horse, and at last came across one that will go well with him, but he is a little knee sprung, caused by driving him on hard roads. How long will it take to cure him? J. H., Eaton Rapids, Mich.—Less work and good care will tend to do much towards making him sound. However, he will always show a little over in knees. If you buy him, apply a blister from knee to fetlock joint once every two weeks. Use caustic balsam. His being knee sprung reduces his value one-quarter in the market.

IS THE CORNCOB NUTRITIOUS?—I would like to obtain some information in regard to feeding corn and cob meal to horses and cattle. Some claim it is all right to feed cob ground with corn, and that the cob contains nutritious elements, while others claim that the ground cob is injurious to animals and contains nothing nutritious. I have fed corn and cob meal to stock for several years and have noticed no bad effects. Will you kindly state in your paper whether the cob contains anything nutritious, and if so, what per cent, and in what form. G. O., Onokama, Mich.—The cob contains a small per cent of nutritious matter, and I don't think it unwise to feed it. However, I think many feeders overestimate its nutritious properties in feeding ruminating animals. They should be supplied with plenty of bulky, coarse food; the ground cob furnishes part of that, and no doubt prevents impaction and promotes digestion.

ECZEMA.—I have herd of Jersey grades. Am feeding cornstalks and ground oats and corn and an occasional feed of small potatoes. They do not seem to be doing well. Have run down in flesh but eat greedily. On the neck and brisket of four cows there are patches where the hair has come off and a hard warty excrescence has formed which looks like dried meal. This also has appeared around the eyes. Three of the cows are giving milk. Do you consider it contagious? Is their milk fit for food? F. F., Buchanan, Mich.—Your cattle are affected with eczema, a skin eruption. Wash them with soapuds. Add a little kerosene to the water and occasionally apply oxide of zinc one part and vaseline ten parts. Give one tablespoonful of equal parts nitrate of potash, gentian, sulphate of iron and ginger in feed three times a day. Their milk is fit for use.

EWES DO NOT GIVE ENOUGH MILK.—My ewes commenced to lamb the middle of December. The first three gave a fair amount of milk; at that time I was feeding corn and oats ground, about one part corn to two of oats, about fourteen quarts to twenty-nine ewes morning and night, and cornstalks with an occasional feed of millet. A feeder told me that feeding corn would dry them up, so I then fed oats. In a few days a few more lambs came, nice strong ones, but no milk for them, and so I lost them. I finally commenced feeding corn meal, wheat bran and oil meal, and in a few days the new ewes gave a little more milk. I now have three nice lambs out of about twenty, all but one or two nice strong ones. Their pasture last summer was river bottom until in July, when it was overflooded. Commenced grazing them about five weeks before they commenced lambing. They have plenty of exercise. E. N. M., Tekonsha, Mich.—Feed equal parts, by weight, of ground corn, oats and wheat bran; also feed some clover hay. Then your ewes will give plenty milk. A few vegetables will do them good.

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The Horse.

FEEDING OATS TO HORSES.

We had something to say a few weeks ago regarding the soaking of oats in water before feeding them to horses, and took the ground that the principle was a wrong one, and would be apt to injure the digestion of the horses to which they were fed. We held that oats fed dry insured their better mastication, which promoted the flow of the saliva, and it became thoroughly mixed with the oats, which were then in the best possible condition for digestion by the animal. Since then we saw an article in the *American Cultivator* from a veterinarian discussing the question of the digestion of food, in which he said: The principles of food are not retained in the body in the form in which they are taken as food; they must first be subject to certain changes before they become constituents of the animal tissue. These changes take place in the digestive tube. The modifications consist in reducing foods to a soluble form, if not already so, in reducing them to a state in which absorption is possible. The nutritive elements of food being absorbed the non-nutritive are expelled. Food is first acted upon by the saliva, a secretion of the sub-maxillary, sub-lingual and parotid glands, which empty their secretions into the mouth. The amount of saliva secreted by the average horse in 24 hours is 84 pounds. The mechanical use of saliva is to mix with the food during mastication, making it a soft mass, such as may be easily swallowed. Its chemical use is to convert the starchy material which the food contains into sugar. This process is brought about by ptyalin, one of the constituents of saliva.

Now this description of the process of digestion in the horse is entirely in accord with what we held in speaking of the practice of soaking oats. Anything containing a great deal of moisture is passed into the stomach without proper mastication, and hence is deprived of the saliva which nature provides as an efficient agent for its proper digestion.

While on this subject it may be well to state that no grain has yet been discovered which is better suited to the horse than good clean oats. Other grain may be used in connection with them, such as corn, but for the animal which has hard tasks to accomplish, requiring long-continued exertion, nothing will take the place of oats. One authority, writing on oats as a food for horses, says that horsemen generally have recognized something in the oat grain for horse feeding taking it beyond the ranks of other feeding materials—astimulus, perhaps, or it may be something which gives a different or a better nerve action. In 1845, Norton claimed to have separated an albuminoid from the oat grain, which he called avenine. Sanson of France announced in 1883 that he had discovered an alkaloid in the oat that had a stimulating effect on the motor nerve of the horse. Whether the chemist will ever find a distinct stimulating principle in the oat grain remains for the future, but certain it is there seems to be something of this kind present. With many horses the driver can tell when the feed has been changed from any other grain to oats or the reverse, by the spirit or mettle of the animal. Sanson found that crushing or grinding the oats considerably weakened the nervous influence of this grain, and Storer concludes that air probably works to the destruction of avenine. This points in favor of feeding oats whole.

At present oats are so cheap that they are an economical feed, and there is therefore no necessity for using anything else on the score of cheapness. The combination of oats and corn, which the government has found to answer so well with army horses, and which is also largely used by horse owners in Europe and Great Britain, is excellent for work horses, and also for growing colts during the winter season, as corn is a great heat-producer. But sound, clean oats, fed dry, will always be the main reliance of the careful horseman.

HORSE GOSSIP.

DETROIT is to have a running meeting in August which will probably last three weeks.

EVEN among the canny Scots the American trotter is becoming popular, and a half-mile track has been built near Glasgow.

THE imported hackney stallion Matchless of Lonsdale, now 13 years old, sold last week at a public sale in New York City for \$12,000.

FRENCH breeders of horses which are to be used for army purposes, complain that the Government wants to pay less for them than it costs to raise the animals.

MARTHA WILKES, 2:08, is to be worked this season, and if she stands training will be campaigned. Martha is another instance of a fast one being raced off her feet as a three-year-old, and has been a cripple ever since.

As showing the great interest taken by the Austrian government in the improvement of the horse stock of the country, the general assembly has granted 650,000 crowns (\$130,000) to the Vienna Trotting Association for racing and breeding purposes.

THE Coney Island Jockey Club's Great Trial stakes for two-year-olds, value, \$20,000,

of which \$2,000 to the second and \$1,000 to the third, closed with 103 entries. The stakes will be run for during the spring meeting at Sheephead Bay, over the Futurity course.

LAST year there was distributed among the breeders and owners of trotters in France, the sum of \$367,193. The result of the large amounts offered in stakes and purses is to give the breeding of trotters a great boom, and the French trotter is improving very rapidly.

FANTASY and Sphinxetta head the list of winners in the Electioneer family the past season. Sphinxetta proved herself to be a very game and consistent performer, and is a bad opponent in a split heat race. That Sphinx family is bound to be a great one in the future history of the track.

LAST season, on the Grand Circuit, three trotters won \$5,000 and upwards; nine, \$3,000 and upwards; thirteen, \$2,000 and upwards; forty, \$1,000 and upwards, and seventy-five \$500 and upwards. Among the pacers, six won over \$3,000; nine, \$2,000 and over; twenty-five, \$1,000 and over, and forty-four, \$500 and over.

The managers of the Kentucky Trotting Horse Breeders' Association have decided to renew the Kentucky Futurity stake for foals of 1897, to be trotted as two and three-year-olds. The stake will be worth about \$15,000. There was some talk about not opening the stake, as it was considered that as so few mares were bred in 1896 it would not fill well.

At the recent Fasig sale of trotting horses, held in New York city, over 100 high class trotters were purchased for Europe. Among the horses on sale were 14 head from this State, all but three the get of the Michigan sire, Sphinx, 2:20½. They brought a total of \$6,300, an average of \$450 per head. Nearly every one of Sphinx's get were taken for export, and the eastern papers speak of them as a fine conditioned lot that sold on their merits. There seems to be money in the right class of horses.

THE *Horse World* says: "The prospect for the future of the horse trade from this on are very encouraging. The demand from the east, as gathered from conversation with eastern dealers, will be better this year than the past few years, the export demand will be heavier than for former years, and all things considered the prospect for this winter's and spring's trade in horses are very bright." Perhaps there are a few bright spots in the horse market for animals for a special purpose; but all classes of horses are slow of sale, and values from 50 to 75 per cent lower than five years ago.

THE Danish Trotting Association announces breeders' stakes for 1898, 1899, 1900, in which not only Danish, but also German and Austro-Hungarian horses will be allowed to take part. These events are the Copenhagen Breeders' purse, 4,000 crowns (the Danish crown is worth 27 cents), distance one mile, for 2-year-olds; the Copenhagen Trotting Criterion, purse 6,000 crowns, distance 1½ miles, for 3-year-olds, and finally the Copenhagen Trotting Derby, purse 10,000 crowns, distance one mile seven furlongs, for 4-year-olds. Entries closed for these races January 15.

THE annual February sale of trotting stock at Lexington, Ky., opened on Tuesday of last week, and 53 head were sold. The amount realized for the lot was only \$3,616, an average of \$68 per head. The highest-priced animal sold was the 7-year-old stallion Time Onward, by Onward, dam Nettle Time. He brought \$300. Another remarkable sale was that of the bay colt, 3 years old, by Lord Russell, dam Eventide, by Woodford Mambrino, and therefore a full brother to Kremlin, 2:07½, which sold at \$100. It cannot be said that there was any encouragement to breeders in this sale.

THE long-drawn-out trial of Robt. Kneeb, the American horseman charged with entering the trotting mare Bethel in races on the German tracks under the name of Nellie Kneeb, was concluded at Berlin on Friday last. He was found guilty and sentenced to nine months' imprisonment, and ordered to pay a fine of 1,000 marks. He will also be deprived of all civil rights for two years. Seven months' allowance for the time which he has already served in prison will be deducted from the sentence, so that in reality Kneeb has only two months yet to serve. The court ordered the forfeiture of the mare Nellie Kneeb. This trial should be a pointer to American horsemen who go abroad to pursue their calling, that European ways are not American ways in dealing with dishonesty on the track. Kneeb's trial and punishment will have a wholesome effect in deterring others from attempting to use such methods on foreign tracks.

THE Driving Club of New York has leased Fleetwood Park during 1897, and the grand circuit meeting will be held there. The regular stake program adopted is similar to that of last year, and the amount hung up for the early closing events is the same, \$22,000. Some changes were made in the faster classes, the 2:12 and 2:17 trot taking the place of the 2:15 and 2:19 stakes of 1896, while the 2:09 class for pacers is also an innovation. The growing tendency to do away with 2-year-old racing on the trotting turf led to some doubt about the wisdom of renewing the stake for colts of this age, but the class filled so well last season that the committee finally decided to try it again. Entries to all of the events will close on March 14, and the entrance fee in each class is the customary 5 per cent divided into six payments. The classes and purses follow: Trotting—2:12 class, stake \$3,000; 2:17 class, stake \$3,000; 2:24 class, stake \$3,000; 2:30 class, stake \$3,000; 2:40 class, 3-year-olds, stake \$2,000; 2:50 class,

2-year-olds, stake \$2,000; 3:00 class, stake \$1,000. Pacing—2:09 class, stake \$2,000; 2:20 class, stake \$2,000; 3:00 class, stake \$1,000. It is probable that a \$5,000 stake, to be known as The Manhattan, similar to the Transylvania stake, will likely be announced by the Driving Club as soon as the officers can determine what class and conditions will best suit horse owners. It is the intention of the committee to make the stake a fixed event in the hope of building up one of the "classics" of the trotting turf, like the Charter Oak at Hartford, Merchants' and Manufacturers' at Detroit, and the Transylvania. The race will probably be for trotters of the 2:15 class, owners making their subscriptions to the stake early in the spring, but with the privilege of naming their horses a short time before the contest takes place.

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The Poultry Yard.

For the Michigan Farmer.

INBREEDING POULTRY.

I have been reading this department in the MICHIGAN FARMER for some time, and have been very much interested in the discussions by the various writers. I would like a little information. I notice Mr. C. P. Reynolds, in speaking of inbreeding, does not recommend it except in exceptional cases. What are exceptional cases? I want to ask Mr. Reynolds if he ever had any experience in breeding in line, or with strains, and if so, what means did he resort to without injurious inbreeding?

Eaton Co., Mich. JAS. A. SMITH.

While we do not pretend to speak for Mr. Reynolds, who can answer the query of our correspondent hereafter, we should say that exceptional cases are when a breeder, desiring to establish certain characteristics so they will be transmitted to future generations, resorts to inbreeding. It is the only means to reach the desired end. The birds must first have the characteristics desired, and these characteristics must be made so strong that they are invariably found in their descendants. The fancier must use this means if he breeds to feather, or for certain other points. To retain these points when once acquired, there must be inbreeding, and then line breeding. In the hands of an experienced person, who will give the time, care and thought necessary, such a system of breeding is not dangerous. In fact the best qualities of every breed of animals on the farm come from this system, and deterioration never follows where proper precautions are adopted, and the party has a knowledge of how to use the principle. But for the ordinary poultry raiser, inbreeding will surely result in deterioration. He cannot give proper attention to the breeding of his birds to render it a safe course for him to follow. It is therefore wisest, and in the end much the cheapest, for him to secure male birds, bred by men who observe this principle in their breeding, to cross upon his flock. He gets the characteristics he wants at once, without fear of failure after long and costly experiments.—ED. FARMER.

POULTRY NOTES.

Do any of the readers of the FARMER raise Slate turkeys? They are said to be harder than the Bronze, and less given to wandering, two desirable characteristics. Will somebody tell us about them?

If a hen eats up all the mortar she can get, at in her habitation it is merely her way of saying that she is in need of lime and grit. Some poultrymen prefer blocks of mortar which are placed where she can help herself.

Turkeys and chickens of all ages like charcoal. It is sometimes mixed with food, but is better given separately. Break it into pieces that can be swallowed easily, then place in a box where they can help themselves.

It sound queer to most Americans to hear about "fresh eggs from China," but the newspapers say they are to be found in some of our largest cities. They are coated with a kind of black mud which remains soft after weeks of exposure to the atmosphere. They are mostly duck eggs, and are said to remain fresh although kept for several months.

The Reliable Poultry Journal reports a remarkable egg record obtained by a subscriber from a pen of five Single Comb Brown Leghorns. In nine months, beginning with February, there was a total of 1,195 eggs, or an average of 239 per hen, or 26½ per month. The smallest number, 126, were laid in February, and the best month, May, showed a total of 137. The cost for food was \$5.87, and the eggs at the market price were worth \$13.86, leaving a profit of \$7.99 for the flock. Such a record is almost incredible.

When chickens that have not yet come to maturity are kept shut up they frequently develop leg weakness. This may be what is commonly termed rheumatism, but it is more likely to be a lack of bone material. In either case it is aggravated by damp quarters, and this should receive the first attention. Remove to a dry place. Bone meal, cut bone, or a little lime when these cannot be had, may be given in the soft food. Half a pint of ground bone is sufficient for two quarts of mush. When clear lime is used we would suggest about half as much. But the bone is much to be preferred, as it contains other ingredients of value.

In looking over poultry publications we find much information that might be of value if it were given with more care. As it is, we find it vague enough to be worthless, yet suggestive enough to be aggravating. Here is an example: Someone in recommending a dip of tobacco water for killing lice, says that it should be made "quite strong, yet not too strong." How much tobacco would be required per gallon to make such a decoction? How "strong" does the writer mean, anyway? This might have been a useful remedy had a little more attention been given to detail. But more than a column was given up to things of no importance whatever, all of which

might have been told in a dozen lines. Have any of our readers ever tried the tobacco dip for lice? If so, will they please tell us something about it.

A writer in the MICHIGAN FARMER has this to say about Buff Leghorns: "Wonderful in early maturity, unsurpassed in their remarkable egg yield, beautiful to look at when we have the handsome buff color combined with a bright red comb, white earlobes and rich yellow legs, and last but not least, very fine for the table. * * * I have kept Buff Leghorns side by side with the White Leghorns now for five years, and my experience has been that the Buffs are just a little better egg producers than the Whites, a little earlier in maturing, and a little larger at any age you wish to take them, from ten weeks old until maturity. The eggs will average a little larger, and my White Leghorns have not been layers of small eggs by any means."

This may sound like the language of an enthusiast, but it must be admitted that the breed is coming to the front in a manner highly gratifying to its admirers. If the hens will lay as large eggs and as many of them as the White Leghorns they ought to be in as much favor as that justly popular breed. The buff color ought to make them a favorite on the farm, as they are much less liable to be picked up by hawks than white fowls. If besides their ability to fill the egg basket they add good table qualities, they are little short of an ideal farm bird. But there is still one question: Are they hardy? The breed has not been established many years, and perhaps has not overcome the weakening effects of the inbreeding which is found necessary to establish a type. At any rate, the breed is worth considering by those who contemplate grading up their old flocks.

Do not put sawdust in pens. If the fowls eat it, and they surely will pick up some of it, there may soon be some cases of crop-bound chickens, as it is liable to pack in the crop. It also gathers moisture and causes dampness. No matter how convenient a pile of sawdust may be it had best be let alone. Road dust is much better. This applies to fowls that are confined. When allowed a free range they are not likely to eat so much of anything so undesirable as sawdust that it will injure them, but when shut up they do not discriminate very closely when it comes to filling their crops.

F. D. W.

For the Michigan Farmer.

CARING FOR POULTRY—THE OLD AND NEW METHODS.

Poultry are claiming a share of attention among the farmers who have an eye for finances. Formerly the poor old hen was allowed to become a tramp, yes, even worse, for she would come, and was liable to bring her whole family and never offer to split wood for a bite to eat, but would walk right into your garden and help herself to your choicest fruit or vegetables, or harvest your grain just either way her fancy led her. "And as the shades of evening were drawing nigh" she would meander home to roost in some old shed or apple tree, because the vermin were too numerous and the air too foul in her own domain. But the farmers who neglect to feed and properly care for their fowls, are getting to be back numbers. We all know the chicks will not wander off to destroy other people's crops if they get enough to eat at home.

Under these depressing times it becomes necessary for farmers to look well to any means of accumulating a little money to help defray expenses, and at the present market prices a dozen of eggs brings about as much as a bushel and a half of potatoes. As a result not a few people are studying to arrange their poultry houses and yards with a view to cleanliness and comfort.

I have been greatly interested in the articles written by different ones on this subject in the MICHIGAN FARMER. I think Priscilla Plum has a trait of character highly commendable, as she does not do anything by halves. But I would like to ask that worthy sister how she can get time to read, or to write for the FARMER, attend the Farmers' Club, the Aid Society, or entertain company, and spend so much time with her chicks?

We all have to admit that Becky Sharp has grit to construct a poultry house under such trying circumstances. And no doubt it is very comfortable for a temporary shelter for this winter.

I admire a lady who can, if necessary, use a saw or hammer. Why need one be so helpless? The men folks have a great many things to look after, and do not want a piece of work laid out for them if they get a leisure moment. But to return to the subject, I have studied the different methods of building and caring for the birds, and I prefer the shed to feed in on top of the ground. I think it more convenient for renovating, and it seems as if the chicks could get more sunlight. I firmly believe the vermin can be entirely exterminated if one is thorough in this work of cleaning and fumigating the building. But I am a new beginner in this branch of business, and will report my success or failure later.

It is not many years ago that people thought they must suffer house flies, ants, roaches, and other insects, to disturb their peace of mind; but such pests are not suffered to live in the house with the thorough business woman, in the present day of progression.

J. B.

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Farmers' Clubs.

CONDUCTED BY A. C. BIRD.

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OFFICERS OF THE STATE ASSOCIATION OF FARMERS' CLUBS.

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All communications relating to the organization of new Clubs should be addressed to F. D. Wells, Rochester, Mich.

THE COUNTY SALARIES BILL.

The question which has received the most careful and deliberate consideration by the Farmers' Clubs throughout the State during the past year is that of the fee system in county offices. The discussion has been general and thorough, and the conclusions arrived at as to the most effective method of correcting the existing evils of the present system have been so unanimous in their general trend that but little difficulty has been experienced in further planning the work.

This unanimity found expression in the adoption, at the recent convention of the State Association, of the following principle:

"That all county officials be paid in full for their respective services by stated salaries fixed by the respective Boards of Supervisors; and that it be made a criminal offense for such officials to receive any fees or other perquisites in addition to their salaries. Further, that the fees collected in county offices be readjusted on an equitable basis, and that hereafter all such fees be turned into the county treasury and become a part of the general fund."

This principle, together with the other declarations of the Association were widely published throughout the State in the newspaper reports of the convention, and from the very beginning received loyal and hearty support upon every side from every practical business man in the State.

In response to this demand for practical, business-like methods in the transaction of public business, Representative Kimmis, on the 3d inst., introduced House Bill No. 198, of which the following is the complete text:

A bill providing for the payment of salaries to county officers and providing for the disposition of the fees received by such officers.

Sec. 1. The people of the State of Michigan enact, That the Boards of Supervisors of the several counties shall determine the compensation which the county officers shall receive for their respective services, which compensation so determined, shall be, in lieu of all salaries, fees and perquisites now received by them under previous acts.

Sec. 2. The compensation so fixed, as provided in section one, shall be a specific annual salary, payable monthly by the county treasurer out of any money in the county treasury, upon order of the person entitled thereto. And it shall be unlawful for the said Boards of Supervisors to grant to said officers any compensation other than the specific annual salary aforesaid.

Sec. 3. At the last regular session of the Board of Supervisors preceding an election at which any county officer or officers are to be elected, said Board of Supervisors shall fix the salary of each of the said officers so to be elected, which salary shall neither be increased nor diminished during the term for which said county officers shall be elected.

Sec. 4. The provisions of this act shall not be construed as repealing existing provisions for the fixing and collecting of fees for specific services by said county officer or officers, but wherever by law a fee is or hereafter shall be prescribed for any service rendered by such officer or officers, it shall be the duty of said officer or officers to charge and collect such fees and in case he fails so to do, where such fee is collectable, he shall be personally liable to the county for the amount of such fee, and an action of assumpsit may be sustained upon his bond by the county treasurer in the name of the county for the fees for which he is liable under this act, which amounts when collected shall be paid into the treasury in the same manner as though they had been collected by the officer in default. And if any county officer or officers shall fail to pay over monthly to the county treasurer all fees so collected by him, he shall be deemed guilty of embezzlement, and upon conviction thereof before any court of competent jurisdiction, shall be punished by a fine not less than one hundred dollars nor more than one thousand dollars, or by imprisonment in the state prison for not less than one year nor more than five years, or both such fine and imprisonment in the discretion of the court.

Sec. 5. Every county officer who is or hereafter shall be required by law to charge and collect fees for the performance of any service by him, shall keep a book in which

he shall record at the time of the rendition of such service the name of the person to whom the service was rendered, and the fee charged therefor and the name of the person or persons from whom he shall collect any fee and the service for which said fee was collected, and the amount of such fee, the date of receiving the same, and the nature and character of the service rendered by him, which book shall be kept open to the inspection of the public, and any person desiring to inspect such book shall have free access thereto. And at the expiration of each calendar month he shall make and file with the county treasurer a complete and accurate transcript of all the entries in his said book. Failure to comply with the provisions of this section shall be deemed a misdemeanor and shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by imprisonment in the county jail not less than thirty nor more than ninety days or both such fine and imprisonment in the discretion of the court.

SPECIAL WORK FOR THE CLUBS.

The introduction of the Kimmis County Salaries bill means special work for every club at its next meeting. The bill is brought forward in obedience to the popular demands of a practical people, and to the people will the legislators look for advice as to its treatment.

A powerful lobby against the measure, made up of the few whose pockets its enactment would touch, may safely be counted upon. How can this influence be overcome? Simply by a counter movement on the part of the people themselves in the form of resolutions submitted to their respective senators and representatives in the legislature.

Let no Farmers' Club fail at its next meeting to pass such a resolution supporting House Bill No. 198, and to send copies of the resolution, signed by the president and secretary of the club, to the senator and representative of the district in which the club is located. Remember the success of the measure depends upon this action.

And may we not also say, let no Grange or other organization of practical business men fail to take similar action?

This is one of those popular movements in which every citizen of this great State who believes in a good government, honestly administered on business-like principles, is intensely interested; and let every one do his part toward supporting it.

Nor need the support given to this measure be limited to the formal organizations. Nothing is more powerful than individual, personal appeal, and private letters to our respective legislators, whether we are members of any formal organization or not, will be honored by them and exert a powerful influence in the final disposition of the question.

Let no member of the legislature fail to hear from his constituents on this question. Let no Farmers' Club forget it. Let no Grange or any other organization of practical business men forget it. Let no good citizen forget to do his duty in the matter.

Whatever is done must be done at once. House Bill No. 198 must receive our active support. It must have it at once.

As the time is now at hand when the direct work of the local clubs in securing legislation must begin, we deem it also an opportune time to present to our readers the paper on, "Effective Work with the Legislature," by Robert Gibbons, read at the recent Convention of the State Association. The entire article is full of valuable practical suggestions and should be carefully read by every club worker in the State.

LEGISLATIVE NOTES.

If business lags in the House, Speaker Gordon is the last man to be blamed.

Skeptical though the people may be, there is an atmosphere of business-like reform plainly manifest in both Houses.

Representative Hammond's Anti-Trust bill is plain, simple and concise, and best of all it seems to hit the nail squarely on the head.

There is too great a majority of practical business men, farmers and otherwise, in both Senate and House to make possible the defeat of the Kimmis County Salaries bill.

Representative Campbell's bill which provides that the subscribers to newspapers and other periodicals cannot be held responsible for the payment for the same beyond the time regularly subscribed for, will be supported by the unanimous verdict of a long-suffering public.

EFFECTIVE WORK WITH THE LEGISLATURE.

[Paper read by Robert Gibbons before the annual meeting of the State Association of Farmers' Clubs, and ordered printed by vote of the Association.]

Mr. President: I have been requested to give to this Association my opinion of the lines upon which effective work can be done with the State legislature. Certainly the subject is an important one to every citizen of the State, for the laws passed by that body may have a commanding influence upon our material interests, either for good or ill.

In considering questions relating to our legislature it is well to ask of whom it is composed, and why it has an existence. The first question is readily answered: It is composed of citizens like ourselves, selected by their friends and neighbors, or a majority of them, to represent the particular section from which they come. The second question may be answered as follows: The legislature exists because it has been found necessary to have representatives of the various parts of the State meet together to discuss and pass upon questions relating to the public welfare. It has no powers except such as have been delegated to it by the people. It should be remembered, therefore, when the legislature is being criticized, and condemned or praised, that its members are our friends and neighbors, and citizens who are, or should be, equally interested with ourselves in the welfare and prosperity of the whole State. Referring to the legislature as if it were made up of men who were opposed to any measures calculated for the public good, or whose interests are opposed to those of the mass of the people, is wrong in principle and fact, and certain to be resented by its members. Any one of us, placed in the same position would show just the same resentment.

The fact that a man has been chosen by the votes of his party associates and friends as a member of the legislature, is no good reason why he should become dishonest, unscrupulous, or unpatriotic. On the contrary it should add to his patriotism and public spirit. I regard it as an unfortunate fact that it has become the custom to refer to the legislature of this State, as a body, in terms of derision, or as unworthy of confidence and respect. I think this is very largely the result of the work of the city newspapers, and those who represent them. They apply to it epithets and names calculated to belittle its members and bring the whole body into contempt. Could there be anything more demoralizing to such a body, or better calculated to lower its moral standard than the constant abuse that is poured out in the columns of the daily press upon each recurring legislature?

I feel certain that we cannot do effective work with the legislature if we begin our efforts by abuse, or hints of dishonesty and ignorance. I not only believe such a method would be bad policy, but that such beliefs are founded upon prejudice, and are very unjust to the individual members. Our first efforts should be to remove this prejudice from our own minds that we may the better be able to present our views in a clear and candid manner. When our prejudices have been got rid of, the next question to be considered is whether the particular measure favored is really one which will prove beneficial, and is within the limitations of the State constitution. In other words, to quote from the famous David Crockett, we should "be sure we're right, then go ahead." A good deal of legislation is so hurriedly passed upon that it becomes law before it is known to be in accord with the State constitution, or the results of its enactment fully understood. The Courts declare it not in accord with the provisions of the constitution, and the legislature is blamed for the passage of such an act. The press then accuse the members of venality or ignorance, when the facts are they were only weak enough to listen to popular clamor, and desired to meet the popular demand. The moral courage to stand out in such a case is not possessed by every individual, for we all like to stand well with our friends, and have the support of the people.

One reason why I value so highly this association of farmers' clubs is because they afford such a fine opportunity to discuss proposed measures, to study out their probable effect when placed upon the statute book, and thus prevent the frequent mistakes from which this and other states have suffered.

Having decided that a certain measure would be generally beneficial to the people, and that it is clearly within our constitutional rights, the next question is the best manner in which to bring it to the attention of the legislative body. A bill embodying the proposed law, carefully prepared, should be placed in the hands of a working member—one who is known to be conscientious, and in accord with the provisions of the proposed law. He will introduce it, and after its reference to the appropriation committee, a time will be set upon which those who favor or object to it can be heard. Here is where the most effective work can be done. A strong delegation, representing a number of clubs, should be on hand with their arguments well prepared, so as to convince the committee of the desirability of the proposed law, and the benefits expected from its enactment. This should be followed up with petitions from every club in the State, which can be signed at the regular meetings on a form prepared for the purpose. Then each member of the clubs should bestir himself to secure the signatures of farmers who are not yet members of the organization. And right here is where a great deal of work must be done so as to bring outsiders into line, and prevent

any antagonisms springing up which may be used effectually in defeating the measure, provided there is any considerable body of men interested in its defeat. They will surely use this antagonism to show a division of sentiment regarding the desirability of the proposed law and a lack of harmony among farmers themselves on the subject.

Some may wonder why one part of the farmers should antagonize the wishes of another portion, especially upon a matter which is clearly in the interests of both. It looks very singular to the superficial observer, but is easily understood once the reason is sought for. Those who have inaugurated the movement generally belong to some organization, and such organizations are usually regarded with suspicion by those who are not members, as they believe there is some ulterior purpose at the bottom of the movement—some personal or organized interest to subserve—as the reason why it is working for its success. It is the prejudice natural to us all when we do not fully understand the question at issue, and it can only be removed by patience and sound reasoning on the part of those who have taken up the work of pushing forward the measure. It must be remembered that outsiders have not had the opportunity to listen to the arguments advanced, or taken part themselves in the discussions, which have finally crystallized sentiment and unified members of organizations in which they have taken place. The man who does not know is the man to be feared when a movement to reform abuses or secure the enactment of desirable laws is in progress. Ignorance and prejudice are the citadels in which the opposition take refuge, when reason and argument have compelled their retreat from the open field of free discussion.

With this class of people work, to be effective, must be carried on with great tact and patience, and nothing done to alarm their suspicions or harden their prejudices. We must work along the line of moral suasion, not with too much heat or force, but saying a little here and a little there which will start thought and study among those who are unconvinced. In discussing questions with such people, it should always be along the line, "Come, let us reason together. Our interests are identical, and we want your aid in a matter which will be not only to the advantage of ourselves, but to our fellow farmers."

I have spoken at length upon this branch of the subject, not only because of its importance, but because the man who does not understand is likely to be found in the ranks of the opposition if we do not take the pains to get him in line with the sentiment we are interested in spreading. I had an experience in this line myself, which was a lesson to me that is not yet forgotten. I will tell the story in a few words, and perhaps it may have the same influence on others that it had on myself. After discussing for some two years in the columns of the FARMER the present methods of marketing grain in Michigan, and pointing out the great advantages that would result to producers if there was a system of grading and weighing grain under the supervision of the State, a bill was introduced in the legislature providing for the proposed change. It really meant a difference of from three to four cents per bushel upon half of the marketable wheat crop of the State, and a large amount upon the crops of oats, barley, rye and clover seed, and I felt certain of the earnest support of the farmers in the matter. When the bill came up before the committee, those who favored the present method were on hand with petitions signed by numerous farmers, protesting against the passage of the bill. They had been told that the new law would require the appointment of a great many new officials, whom they would have to pay, while at present they paid nothing for inspection. Of course this was untrue in both particulars, but that made no difference. The legislators concluded, and rightly so under the circumstances, that it was best not to have anything to do with the matter when the parties most interested were so divided in sentiment. That is why I say that the man who does not know is the man to fear, and we want to get rid of him as nearly as possible by using the farmers' clubs, and all kindred organizations, to spread a knowledge of the facts regarding any public question upon which legislation is desired.

If we have the mass of the people on our side we shall always win in the end, provided the measures presented for support are just and right, and in accord with the constitution of the State. If we cannot unite the people with us on a question, then it is best to defer action until it is better understood. Even when a law is placed upon the statute book it is likely to prove worthless—a dead letter—if public sentiment is not strong enough in its favor to demand its enforcement. The statute books of our State are loaded with dead laws, which are a standing argument against hasty and ill-considered legislation. Some of them were found to have just the contrary effect from what was hoped and believed by those who favored their enactment. The mortgage tax law was a case in point. It was just in principle, but instead of a boon to the debtor, it became a serious obstacle to the borrower, and inflicted grave injury upon many. Human nature must be reckoned with in formulating laws for the observance of a community, and the average man resents the enforcement of any law that interferes in the slightest manner with what he believes to be his constitutional rights. That is why so many laws prove worthless, and we may as well understand this when urging the passage of new or the amendment of old ones.

Another point I wish to refer to, and that is the necessity for concentrated effort. Don't scatter your strength over a number of subjects. Select the most important,

and let every effort possible be made to carry it to a successful conclusion. Pay no attention to any other question until that one is settled. By this means you accomplish something. If you take up a number of questions, the great probability is you will fail on all of them. Concentration wins on the battlefield, in public life and in private business. Let us use it to its utmost limit when we are advocating a desirable measure, or opposing an undesirable one.

Let us also be honest in our methods, candid with those who are on the opposite side, so that victory will leave us nothing to regret, and the opposition will feel compelled to regard us with respect. Even success will not justify deceit or unfairness.

To sum up the whole matter in a few words, to accomplish anything useful in legislation, work should be begun with the people. When they are educated to the change, and sentiment is so united as to leave no room for doubt, then work should be begun with the legislature. It looks like a long way around, but it is really the shortest and safest way in the end. And in working with either the people or the legislature, it must always be kept in mind that the great mass of our citizens are honest and patriotic, and that mistakes on the part of either generally come from imperfect knowledge of the merits of a measure they are called upon to consider. Therefore, when you wish to accomplish anything, first convince those who have legislation in charge of the value of the proposed law, reinforce and sustain them by letters and petitions, and secure the help of the press to point out the benefits which will accrue from its passage.

You will say this means a lot of hard work. It does, and this should be understood before a start is made, for you don't want to put your hand to the plow and look back. I have never known anything of value to have been accomplished without work. It is the touchstone of success in private effort or public achievement, and without it there is neither glory nor honor, nor the final success which crowns earnest and persevering effort.

REPORTS FROM LOCAL CLUBS.

ARGONAUT FARMERS' CLUB.

At the February meeting of the Novi Argonaut Farmers' Club, the discussion of the Association question for the month brought out the following expressions:

Were the ladies given topics that they could discuss as an advancement to themselves, they would more actively engage in and be more active in club work, as the farmer's wife is often more interested in the uplifting and progressiveness of the work of the clubs than are the farmers themselves.

The idea also prevailed that the questions submitted to the clubs during the past months were such as must interest the ladies, as the lessening of taxation is of as much importance to the farmers' wives as to the farmer, and they should also take an active part in these discussions.

It was also urged that the questions assigned should be along educational lines, or at least be such that the gentlemen would feel like taking an active part in their discussion. That the frequency of given topics is not of so great importance as the substance of those topics.

As a result of an informal, though thorough discussion by the club, the following expression was taken: That only as the questions given out are of such a nature as to be equally instructive and interesting to the farmer as well as to his wife will they receive the favor of this club.

MRS. J. D. HAZEN, Cor. Sec.

CONCORD FARMERS CLUB.

The January meeting of this club was held at the residence of Mr. and Mrs. Orville Parmeter, with about the usual number present.

The afternoon session opened with President Stoddard in the chair. The question for discussion, "How can we best adjust the salaries of our county officers?" was opened by E. H. Dewey.

The question was thoroughly discussed. It was the opinion of many of the members that it could be done by sending petitions to the legislature.

Mr. Rowe said that a part of the salary was regulated by State law and part by the supervisors.

The question was asked, "How has the State Association secured such reductions in salaries of county officers, since it was not done by legislation?"

The second question of the day, "What can the farmers of America do to better their financial condition?" was opened by Dr. J. L. Parmeter, who spoke at some length upon the subject, urging the necessity of more system in farming; the keeping of a debit and credit account; educating themselves that they may know their power; seeking to gain a knowledge of the elements of the soil, that they may have some definite system of keeping up the fertility of the soil and the productiveness of their farms; the remedies lie very much within themselves.

The taxing of mortgages was next taken up for discussion. It was thought that if every one were assessed for all the property they owned, if they gave in an honest account of what they are worth, the burden of taxation would be lessened.

The question, "Should mothers train their daughters in domestic work, and should children assist their parents as wage earners?" was opened by Mrs. Geo. Tefft and Rev. A. R. Gay. Mrs. Tefft read a paper in which she said the aim of some mothers seems to be to make their daughters as idle and useless as possible. When girls think it is not respectable to be industrious, principle as well as habit has become

perverted. All young girls should learn the practical routine of housework, by performing the duties with their own hands. Every woman, rich or poor, should have a practical knowledge of housework. She thought children should have the money they earn, providing the parents are in circumstances to do without it and the children are inclined to use it wisely, as in self-improvement, or in saving for some good purpose.

Rev. Mr. Gay followed with some interesting remarks. He thought all children should be early taught to take an active share in the home, that every one required plenty of physical exercise to develop the body and thus become strong and robust.

The next meeting will be held at the home of Mr. and Mrs. Thomas Cochran the first Saturday in February.

JOSEPHINE THRESHER, Reporter.

VASSAR FARMERS' CLUB.

This club held its January meeting at the home of Mr. and Mrs. Wm. Davies on January 21st, and over fifty interested people were present.

President Chas. Johnson called the meeting to order at 11 o'clock, and the regular order of business was gone through. A resolution was passed that children who had reached the age of thirteen years could become members and be entitled to all the privileges of the club.

At the regular afternoon session we first listened to a paper on "The Mission of the Farmers' Club," by C. E. Selden. This paper was received with much interest. He well explained the great good being done and that could be done by the Farmers' Clubs.

After a nicely rendered recitation by Miss Leon Livingstone, a paper on, "System in Housekeeping," by Mrs. Mary L. Livingston was read. This paper brought out many good suggestions by the ladies of the club which were both interesting and instructive. A program was arranged for the next meeting, after which we adjourned to meet at the home of C. R. Selden on Feb. 18th.

We now, at the close of our second meeting, have a membership of forty-three, which shows the interest the people of this community are taking in the work.

W. T. LEWIS, Cor. Sec.

STOCKBRIDGE FARMERS' CLUB.

The regular meeting of this club was held at the pleasant home of Mr. and Mrs. Eugene Stocking, on Jan. 30th, with over sixty present.

After dinner the club was called to order by President Thompson. The report of the delegate to the State Association was then given and general and earnest interest was shown in the work of the Association.

The remainder of the general business of the club being transacted, after music and recitations, W. W. Haveland read a paper on "Direct Legislation with Initiative and Referendum." The paper was well discussed by Messrs. A. A. Hall; W. H. Howlett, H. Dwight and others. The general opinion seemed to be that referendum in all cases could hardly be used by the people in all legislation.

The next meeting will be held at the home of Prof. A. A. Hall in Stockbridge on Feb. 27th.

W. G. NICHOLS, Cor. Sec.

UNION FARMERS' CLUB.

One of the most profitable meetings of this club was held at the beautiful home of Mr. Chas. Leonard, in Burlington, on January 21st. A large number of members were in attendance and all seemed intent on having a pleasant and profitable time.

After dinner among the many good things of the literary program was a paper by Mrs. J. R. Blake, on the subject, "The farmer's relation to society." The paper was thoroughly enjoyed by all, and was received with hearty applause.

It was formally decided that the club would make a special exhibit at the next county fair, and the president appointed a committee to solicit exhibits.

H. B. Smith next read a paper, taking for his subject "The survival of the fittest." He stated, among other things, that in union there is strength and that it applied to all branches of business. Organization exists in political parties, in corporations, and among the labor classes; so also it should exist among the farmers. There should be unity of action for desired legislation.

The next question was brought up in the form of a debate. The subject was, "Shall the people have the benefit of direct legislation?" W. D. Baker took the affirmative and J. F. McCausey the negative. A general discussion followed, nearly all of which favored the negative side of the question. The session closed with a question box.

MARY A. DUNKS, Cor. Sec'y.

BLISSFIELD FARMERS CLUB.

One of the most successful meetings of this club was held on January 13th at the pleasant home of Mr. Luther Smith. Although the day was somewhat disagreeable there were about seventy-five present. President W. H. Colyer called the meeting to order.

After the usual excellent literary exercises came the club question for the day, "Do the farmers get what belongs to them when they take their grain to the mill to have it ground? If not, why not?"

The discussion was opened by the President with a paper on the subject, supplemented by remarks. He cited some instances where one-fifth the grain was taken for toll. He also referred to the law as given in Howell's Annotated Statutes, Vol. 1, Section 1618, and Vol. 3, Sections 1619 and 1621.

Mr. Austin thought that the millers were not making much money, and that if farmers would clean their grain before going to mill they would have no occasion to find fault with the millers. Others thought, however, that the millers had been taking the lion's share for a long time. The discussion was animated and lively and created

quite an interest among those who took part in it.

After the report of the executive committee the club adjourned to meet at the home of Mr. and Mrs. Ed. Mallory on February 10th, at which time the following question will be taken up: "How can we increase the fertility of our farms?" led by Milton Wolverton.

W. H. COLYER, President.

TECUMSEH AND FRANKLIN FARMERS' CLUB.

The last meeting of this club was held at the home of Albert C. Alesworth, in Franklin, Friday evening, January 22d. Although the night was exceedingly cold and the roads somewhat drifted, a good crowd was in attendance. After listening to a good literary program the following questions were brought up and discussed:

The first was that the present system of granting certificates is detrimental to the best interests of the common schools.

The second was, that bicycles ought to be taxed and the tax used for the improvement of the highways.

The club then adjourned to meet in two weeks at the home of Geo. Swartz, when the following topic will be discussed: We recommend that all county officers be paid a salary fixed by the board of supervisors, and that all money pertaining to said offices be turned into the county treasury. The discussion will be opened by Wm. Waldron.

ELLA M. MUNGER, Cor. Sec'y.

WEST LEONI AND EAST BLACKMAN FARMERS' CLUB.

This club met at the home of Mr. and Mrs. S. E. St. John on January 21st. The name of the club has been changed from North Leoni to the above.

The meeting was called to order by President Crafts, and after the usual opening exercises, two new members joined the club. A letter being read by the secretary of the Brooklyn Club relating to the Jackson County Farmers' Institute society, soliciting members for the same, the sentiments were adopted by the club, after which a discussion ensued as to the advisability of a permanent organization of a Jackson County Farmers' Club.

H. McClure, Ed. St. John, Wm. Beebe and several others thought it a wise plan and on a rising vote the club supported the idea unanimously.

Among the best questions from the question box were the following: What are the salaries of the officers of the Jackson County Farmers' Mutual Fire Insurance Company? This was answered by Ed. St. John. The answer brought out a warm discussion regarding the salary of the Secretary. The opinions of a number were that there were plenty of men qualified for the office who would be glad to take it at less salary.

Which is the best churn to use? Answers favored the bent wood and barrel churns, the users of each championing the ones they were using.

What is the opinion of the club regarding the voting of \$50,000 for a court house the coming spring? The question was laid on the table for one month when a thorough discussion will be given it.

The question of supervisors' fees came up for discussion. It was thought that the supervisors had been very free to comply with the demands of the public to have the salaries of county officers reduced, and the club was unanimous in the opinion that a

supervisor should not receive more than a jurymen, which is two dollars a day.

The next meeting will be held at the home of Mr. and Mrs. Frank Nichols on February 25th.

MRS. S. J. MADDEN, Reporter.

Presidential Inauguration—Low Rates via Michigan Central.

In connection with the above occasion at Washington, D. C., March 4th, Michigan Central agents have been authorized to name very low rates. Special sleeping car service has also been arranged for. If you are interested valuable information can be obtained by conferring with Michigan Central Agents.

THE WAGON.

By the use of low down wheels the wagon for loading purposes has been brought to a convenient height. This broad tired wheel is probably worthy of more consideration on account of its not sinking into the soil as does the ordinary wheel. It is therefore of great service in the meadows, corn or small grain fields. Just as fast as the steel wheels with oval staggered spokes become known, they will take the place of the wooden ones and save mankind a vast amount of annoyance and expense.



The Electric Wheel Co., of Quincy, Ill., are making the staggered oval spoke, broad tired wheel at a remarkably low figure. These wheels are made to fit any axle without extra charge, and are also made of any size you want and with any width of tire without extra charge. They also make a low down handy wagon on which their wheels are used. In order to introduce the wheels they make a low down handy wagon on which their wheels are used. In order to introduce the wheels they make a low down handy wagon on which their wheels are used.

A very low price on the running gear and in their catalogue will be found a full explanation of the wheels, and the proposition they make. They also manufacture wheels for threshing machines, engines and cultivators and other farm implements. Their catalogue is free if you mention this paper.

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AT SMALL COST.

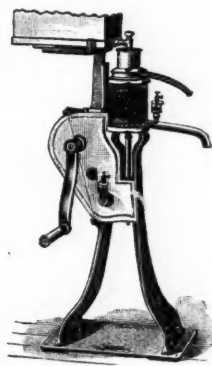
In Chas. Cluthe's Genuine Truss (pat'd.) we change position from hips, spine and bones to the natural cushions of muscles. No straps. By the ball-bearing pad, we use Rupture's Own Force to retain itself.

Full particulars in our book, sent free in plain, sealed envelope. This may not reappear. Write now.

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The Improved U. S. Separator



FIRST IN WAR

Our catalogue gives a full statement of the now famous St. John battle at Hubbardston, Vt., between the Improved United States, the Sharples and the De Laval; the Improved U. S. beating them in the four vital points of clean skimming, amount per hour, general durability and ease of running.

FIRST IN PEACE

We are selling our butter at two cents above market price, and are making at least one-half more butter from the same number of cows or same milk that my neighbors do. The separated milk goes to the calves and hogs warm and fresh, paying almost as much in raising calves as 'he butter is worth. It comes as near using the milk and selling it too as anything we ever tried.

L. D. STILLSON, York, Neb., Jan. 15, 1897. Editor Nebraska Bee Keeper.

FIRST IN THE HEARTS OF ITS COUNTRYMEN.

I have no trouble in convincing others of its superior merits, as you will see from the fact that during the first month in which I looked the matter up, I sold to my neighbors ten Improved United States Separators, seven of these being in my own town, where there had been in the past three months five De Laval, four Sharples, and one Empire in trial, and at the present time no one in the town owns any other separator than the Improved United States. South Vernon, Vt., March 7, 1896. W. N. DUNKLEE.

FULL ILLUSTRATED PAMPHLETS FREE FOR THE ASKING.

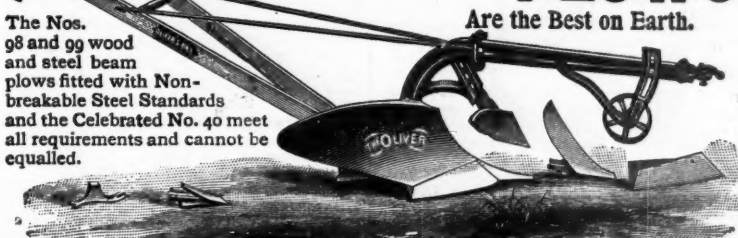
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"LIVER GAVE TO THE WORLD THE CHILLED PLOW"

and it has saved more money to the farmers of America than any other implement ever produced

Oliver Chilled PLOWS

Are the Best on Earth.



Look Out for Imitations and Buy Only of the Regular Oliver Agents.

Miscellaneous.

YOUR EYES.

Oh, praise me not with your lips, Dear One,
Though your tender words I prize;
But dearer by far is the soulful gaze
Of your eyes, your beautiful eyes,
Your tender, loving eyes.

Oh, chide me not with your lips, Dear One,
Though I cause your bosom sighs;
You can make repentance deeper far
By your sad, reproving eyes,
Your sorrowful, troubled eyes.

Words, at the best, are but hollow sounds;
Above in the beaming skies,
The constant stars say never a word,
But only smile with their eyes—
Smile on with their lustrous eyes.

Then breathe no vow with your lips, Dear One;
On the winged wind speech flies,
But I read the truth of your noble heart,
In your soulful, speaking eyes,
In your deep and beautiful eyes.
—Ella Wheeler Wilcox.

IN ALSACE.

Salome stood on the bridge which spanned the foaming stream, and gazed dreamily at the mountains beyond, and then at the meadows. Salome's cows were slowly coming homeward. In the pasture she could see her sister, Frederika, making the hay. The girl was not lazy, only dreamy. Presently Salome was by her sister's side. Then each one took a bundle of hay and carried it to their father's outhouse, for old Dominic was the forester.

The girls worked on, when Salome's bundle of hay was seized and carried for her. The girl turned surprised, and there was Morand, the young forester. She knew he had come, for her father had expected him. Dominic was to teach him forest ways.

"I thought it was Cousin Joseph," cried Salome with a smile, and then Frederika laughed. "We were expecting Cousin Joseph; you know he is shut up for weeks in his factory. Joseph cares less for the grand forest and its wild beauty than he does for gardens and their flowers."

"I do not admire his tastes," answered Morand.

Then homeward went the two girls, and the man followed, and as they passed the window of their little house, there was the old mother, and Salome kissed her. Frederika stood a little in the back ground. She now turned back and sought a new bundle of hay. Then Morand ran after Frederika and took her bundle and carried it for her.

Then the father joined the three young people. Now Frederika, who was the practical sister, went into the house to prepare the evening meal.

"Come along, Morand," said the old forester; "the soup will get cold, and we must milk the cows before we go in." Morand looked in despair; he had never milked a cow in his life. "I have much to learn," muttered he, piteously.

"Supper is waiting," said Frederika. As they hastened on, Salome noticed that Morand had stuck in his button-hole a bunch of flowers. They were crocuses.

"So you like crocuses, M. Morand?" "I thought you did, Mlle. Salome," he said.

So, for a time, Morand lived with the forester. The harvest was gathered, and there was a good stock of potatoes. The winter was coming along and a cold one, but the family were prepared to face it. Salome's mother required the girl's constant attention.

Joseph came now on every Sunday. He was overseer of the factory in the neighboring little town. Everybody respected Joseph. The young man was the support of his family. Perhaps his visits to his cousins were not as pleasant as before. The fact was, though no one knew it, he was in love with Frederika. Then he felt twinges of jealousy. He was uncertain whether Morand liked Salome or Frederika.

"Besides," thought Joseph, "he will soon get his nomination to be forester elsewhere. A few months' patience—I shall speak to my uncle, and Frederika will not say me nay."

Morand watched Frederika from morning till night, engaged in her household cares.

"The time will come," he said softly to himself.

One night the moon shone in through the frosty windows. Salome sat at the foot of the bed, watching her sleeping mother.

"She looks less pale than yesterday," thought Salome. "Perhaps father is right, she will revive in the spring."

Morand and Frederika were laughing together—sometimes even her father, too—but Salome only sat and watched her mother.

"Take care, my child, take care," the mother feebly murmured, as the listless hand dropped, and over the beloved features came a solemn, terrible beauty. Salome uttered a sharp cry and lost consciousness.

When she came to herself she was beside the kitchen. Morand alone sitting near her. "Thank God, my child, your mother was not alone when she died!" she heard her father say.

Morand at once found the means of sending the sad news to Joseph, and Joseph came at once. It was a bitter cold day when the mother was buried in the village graveyard. It was terrible work making their way through the deep snow. It was

Joseph who gave Frederika his hand, and Morand supported Salome.

"Why, why," Salome said to herself a thousand times, "did my poor mother bid me 'take care'?"

Father Dominic seemed to take now no interest in passing events. His wife was dead.

Then an unusual thing happened. Dominic wrote a letter, and Morand went to the village to post it. In a week afterward Morand had a letter, and he read that he had an appointment as forester in another part of the country—or should he prefer it, he might remain as Dominic's assistant.

Morand hesitated. The old forester, who had guessed the contents of the letter, had turned aside.

Salome watched both with evident anxiety. Frederika, busy preparing dinner, was the only one who took no heed.

Morand met Salome's inquiring eyes. "I am appointed forester to a place fairly well paid, but a long way from here."

"A long way from here," repeated the old man. "I begged that favor. I wanted to keep you here; I am not the man I once was; my strength does not come back with spring; I think she must have taken it away with her, all my courage and all, my hope."

His daughters tried to comfort him, but he shook his head without replying. Morand precipitately escaped from the room.

When the young man came back, his dinner had been laid for him only. But Frederika had taken care that all should be quite comfortable for him, even more so than usual; and she was in the kitchen alone. Morand seized her hands.

"If I go to that far-off place, will you go with me?"

"Wherever you like," said she, simply.

She had hitherto been too busy to think of love. But when Morand took her in his arms a deep joy took possession of poor Frederika.

At this moment the door opened and Salome entered. Frederika hastily drew back, but her hands were still clasped in her lover's, and Salome saw it.

"Sister," said Morand, with a smile.

Amazement, almost stupor, was written on the poor girl's white face. All she muttered was, "Does father know?"

"Not yet," answered Morand, "I was just going to look for him in the forest."

When later the father came home, Frederika simply said to him: Morand loves me, he wishes me to be his wife.

"God bless you both," said Dominic, and then he asked: "Do you stay or go?"

The father then thought for a moment and added: "Yes. We must expect that you will want a home of your own. That is right. You know pretty well what are the duties of a forester. It is hard for me to part with both of you, but it is better so."

So Morand understood, to his great joy, that he had won, not only his wife, but his independence. Salome and her father went out together. "Thou shalt be wholly my own," he said tenderly. "Thou shalt replace all whom I have lost."

Salome helped her sister to arrange her wedding dress, silently but energetically. She seemed to have quaffed in one draught her bitter cup, to have cut off her right hand and plucked out her right eye. Salome was bent on rooting out of her soul a love which, however innocent at first, was innocent no longer—Salome watched and prayed night and day.

Joseph was at the wedding. When he asked for a holiday it was with so dull a face that his master inquired laughingly whether he was off to a marriage or a funeral.

Joseph's secret was tolerably well guessed, but the bridegroom was not jealous.

The young couple were gone, the forester's cottage had become silent. Once Salome used to sing at her work, now she worked without singing. It was with difficulty that she remembered little details of house-keeping, so easy to Frederika.

"I am still stout enough to take care of myself, and I want no assistant," said her father. "It was Morand I wanted, but the lad knew better how to shift for himself."

It was the brightest day of the very dull week when Joseph paid his usual visit; he never failed to come early and depart late.

He entered, taciturn and cold, arranging on his lap the flowers he had gathered in the forest, great handfuls of which he often took back to his city home. Never once had he exchanged confidences with Salome, yet he felt she understood him. Whether he spoke or not, her presence was a rest to him. She, on her side, began to find the time long between his visits, and each time when Joseph went away she said to him, "You will be sure to come again?"

The clouds were low and the sky gray when Joseph, stick in hand, took the next time his way to the forester's cottage. Streams long frozen came tumbling down the rocks or filtering through the ground, the murmur of waters was heard on every side.

Salome stood at the house door, watching the sudden thaw. Her father was away. She knew Joseph was coming, and she felt, she knew not why, glad for that. Then she saw Joseph. She felt like scolding him for having loitered so long. He met her and he laughed; he had been gathering the first Spring flowers, but Salome did not laugh.

"Will you walk with me, Salome," he asked. "We may meet your father," and now chatting, the two went toward the glen.

They reached the stream. Then Joseph stopped, horrified. It was a roaring torrent. Dominic was not there. The water was tearing down the mountain side.

"For the love of God," cried Salome, "let us hurry on. Close by here there is a cottage; a poor woman and her child live in it. They will be swept away."

(Continued on page 125.)

A CYCLING MINISTER'S EXPERIENCE.

THE RESULTS OF LONG, HARD RIDING.

Fully 3,000 Miles on His Wheel.

He Makes Some Reflections on the Benefits of the Sport and Tells of its Dangers.

From the Press, Utica, N. Y.



The Rev. Wm. P. F. Ferguson, whose picture we give above, will not be unfamiliar by sight to many readers. A young man, he has still had an extended experience as foreign missionary, teacher, editor, lecturer and pastor that has given him a wide acquaintance in many parts of the country.

In an interview a few days ago he said: "In the early summer of '94 I went upon a tour through Canada on my wheel. My route was from Utica to Cape Vincent thence by steamer to Kingston, and from there along the north shore of the lake to Toronto and around to Niagara Falls. I arrived at Cape Vincent at 5 o'clock, having ridden against a strong head wind all day."

"After a delightful sail through the Thousand Islands, I stepped on shore in that quaint old city of Kingston. A slight shower had fallen and the streets were damp, so that wisdom would have dictated that I, leg-weary as I was, should have kept in doors, but so anxious was I to see the old city that I spent the whole evening in the streets."

"Five o'clock the next morning brought a very unwelcome discovery. I was lame in both ankles and knees. The head wind and the damp streets had proved an unfortunate combination. I gave, however, little thought to it, supposing it would wear off in a few hours, and the first flush of sunlight saw me speeding out on the splendid road that leads toward Napanee."

"Night overtook me at a little village near Port Hope, but found me still lame. I rested the next day, and the next, but it was too late; the mischief was done. I rode a good many miles during the rest of the season, but never a day and seldom a mile without pain."

"The winter came and I put away my wheel, saying 'now I shall get well,' but to my disappointment I grew worse. Some days my knees almost forbade walking and my ankles would not permit me to wear shoes. At times I suffered severe pain, so severe as to make study a practical impossibility, yet it must be understood that I concealed the condition of affairs as far as possible."

From being local the trouble began to spread slightly and my anxiety increased. I consulted two physicians and followed their excellent advice, but without result. So the winter passed. One day in March I

happened to take in my hand a newspaper in which a good deal of space was taken by an article in relation to Dr. Williams' Pink Pills. I did not at that time know what they were supposed to cure. I should have paid no attention to the article had I not caught the name of a lady whom I knew. Reading, I found that she, in similar circumstances, had been greatly benefited by the use of Pink Pills, and knowing her as I did I had no doubt of the truth of the statement that she had authorized.

The first box was not gone before I saw a change, and the third had not been finished before all signs of my rheumatic troubles were gone to stay.

"I say 'gone to stay,' for though there has been every opportunity for a return of the trouble, I have not felt the first twinge of it. I have wheeled thousand of miles and never before with so little discomfort. I have had some of the most severe tests of strength and endurance, and have come through them without an ache. For example, one afternoon I rode seventy miles, preached that night and made fifty miles of the hardest kind of road before noon the next day. Another instance was a 'Century run,' the last forty miles of which were made in a downpour of rain through mud and slush."

"You should think I would recommend them to others? Well, I have, and have had the pleasure of seeing very good results in a number of instances. Yes, I should feel that I was neglecting a duty if I failed to suggest Pink Pills to any friend whom I knew to be suffering from rheumatism."



THE PRESBYTERIAN CHURCH IN WHITESBORO, OF WHICH REV. WM. FERGUSON IS PASTOR.

"No, that is not the only disease they cure. I personally know of a number of cures from other troubles, but I have needed them only for that, though it would be fair to add that my general health has been better this summer than ever before in my life."

Dr. Williams' Pink Pills contain all the elements necessary to give new life and richness to the blood and restore shattered nerves. They are sold in boxes (never in loose form, by the dozen or hundred) at 50 cents a box, or six boxes for \$2.50, and may be had of all druggists or directly by mail from Dr. Williams' Medicine Company, Schenectady, N. Y.

RHEUMATISM

Permanently cured by using DR. WHITEHALL'S RHEUMATIC CURE. The latest, surest and best. Sample sent free on mention of this Magazine. THE DR. WHITEHALL MEGRIMME CO., South Bend, Ind.

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DR. WILLIAMS' INDIAN PILE OINTMENT is a Sure Cure for Blind, Bleeding and Itching Piles. It absorbs the tumors, allays the itching at once, gives instant relief. Every box is warranted. Sold by druggists. Sent by mail on receipt of price, 50 cents and \$1.00 per box.

WILLIAMS MFG. CO., Props., Cleveland, Ohio.

LEARN TELEGRAPHY.

Write for Catalogue DODGE'S INSTITUTE, Valparaiso, - Ind.

"How brave and strong is she," thought Joseph. He was certain now that he heard a cry of distress. Yes, there at the window he saw a woman, a child in her arms, and the house was shaking. It would topple over in an instant, and the torrent had to be crossed if they were to be saved. A moment after Dominic was by Joseph's side. The forester at least was safe. Then Joseph, in a loud, clear voice, bid the woman come down. She did so, and shrieked when she saw the raging torrent. Salome fell on her knees upon the bank. Her father stood by her, shouting out advice to the brave fellow who was already fighting with the torrent.

"That round stone is not firm! There is a hole in the bed of the stream! Brave lad! That stupid woman! She clings to him! She will hinder his getting ashore!" But Joseph's feet were firm on shore; he was able to make a sign to Salome that he would go straight home with the woman and child.

"Let us hurry back and see that there is a good fire and wine and food!" cried Salome.

Meantime, Joseph, carrying the child and helping the woman, had succeeded in getting home first. He had not changed his clothes, but he had made up the fire, placed the woman in Father Dominic's armchair, and wrapped the child in a rug, where it lay warming its little feet in the hearth and smiling up at its preserver.

Salome stood an instant to watch the pretty sight, then took the child in her arms. "Go, Joseph, get yourself dried in father's room. You have done enough for one day. You will be ill yourself."

"Then will you nurse me?" and he took her hand.

"Anything you like, if you will only go and change your clothes."

Some months after Joseph and Salome were walking along the banks of the stream. It was Sunday, and the little waves seemed singing a Sunday psalm.

"What a transformation," said Salome, "since the day you saved that poor woman and her child! How contented she is now! This stream is not more changed than her life, poor soul, thanks to you."

"And our life, too," said Joseph tenderly. "Yes," answered Salome, pressing her husband's arm; "our storms are past; the stream flows peacefully on. I understood to-day that one may yet be happy."

"I understood it a little before you did, perhaps," said Joseph, smiling.—From the *Leisure Hour*.

The Dairy.

THE STATE DAIRYMEN'S ASSOCIATION.

The thirteenth annual meeting of this Association was convened at the Court House in Charlotte, Tuesday, Feb. 2d, 1897, for a three days' session.

The attendance for the first day was rather light. The second day's record was something better. In the absence of the Mayor the address of welcome was delivered by Amos F. Clafflin. To this John I. Breck, of Jackson, responded in his usual happy manner.

This was followed by the annual address of Pres. J. N. McBride. We give the following extracts, in which he recommended a dairy union, similar to that of California. For example, a central house in Detroit to receive consignments of butter, not direct from the producer, of necessity, but that in each village and town.

A grocer receives the butter and consigns it to the central house. The village dealer would receive only first-class goods that conformed to the standard adopted, and pay 50 per cent of the value of the butter and settle the balance on receipt of returns from the central house.

Business devices and ingenuity would have to be employed to make the matter a success. The problem of the dairyman at the present time is not cheaper production, but more economic means of distribution.

This year has been one of depression and financial disappointment. Dairy products have been lower than ever before. Unrestricted competition on the part of fraudulent dairy goods has done more to demoralize our Michigan agriculture, than all the farm products that have been brought into the State from Canada.

Adequate legislation against oleomargarine is a necessity to the dairymen of Michigan, since the State becomes the dumping ground of the spurious products shut out from other States.

The afternoon and evening sessions of the first day were devoted entirely to a discussion of the manufacture and sale of cheese products. The first topic, "The man at the receiving can," was assigned to E. A. Haven, of Bloomingdale, but he was absent.

"The rennet, its preparation, use and influence," was treated by Myers Sine, of Clio. "Cutting and cooking the curd," by B. E. Peebles, Fairfield. B. C. Morten, of Hills, discussed "Dipping, salting and hooping."

We have not enough space to give these papers entirely, but will publish them separately in succeeding issues, as we did last year.

At the evening session a paper, "The curing room," was read by the secretary, S. J. Wilson, owing to the absence of the writer, S. G. Power, Northville. Hon. Geo. B. Horton was assigned the topic, "Needs

of Michigan cheese manufacturers," but he was not present.

"Milk, butter and cheese from the standpoint of health and economy," was very exhaustively treated by Dr. Mary E. Green, of Charlotte. The discussion which followed stirred up the members of the association very generally.

The lengthy discussion of all the topics drew out many of the members in hearty words of approval or earnest criticisms of statements made by the speakers. Though the attendance was disappointing, the interest was unabated.

Wednesday was devoted to general dairying, and rated the best day of the meeting. After the president had appointed the various committees, State Analyst W. L. Rossman, read a carefully prepared paper on "The chemistry of milk, butter and cheese; their adulteration and methods of detection." Prof. Rossman had with him various charts and apparatus to fully illustrate and explain the composition of milk products, acid tests, etc.

"The Relation of a Factory to its Patrons," was assigned to E. A. Darling, Willis, and A. H. Pomeroy, Petersburg, was to discuss the "Separation and Care of Cream." Both were absent and these topics were quite thoroughly discussed by the interested members present.

Every dairymen in the State should be sure to call for a copy of the complete report of the Association for this year. The report for 1896 is now being distributed by Secretary S. J. Wilson, Flint, Mich.

In the absence of A. O. Barnes, Caledonia, who was to read a paper on "Creamery butter-making," Prof. G. H. True, of the Agricultural College, read a paper on "The Work of the Dairy School." The sentiments expressed by Prof. True were unanimously approved by the audience.

Wednesday afternoon was occupied by a program furnished by the Michigan Jersey Cattle Club. The writer was obliged to leave at this time for the Kalamazoo County farmers' institute, so that the "Jersey" program and last day's session must be deferred until our next issue.

We shall try to secure some of the papers read at this meeting and publish in this department in future issues.

HOME-MADE CALF-FEEDER.

It is claimed that young calves when fed on skim-milk in the usual way, from a bucket or a trough, gulp it down too rapidly for best results. A cheap and handy de-



vice is made by using a piece of light wood board, cut round, so as to fit loosely inside of a common pail. Insert in the center of this float a spile (A) of size and shape of the cow's teat. Cover this spile (or teat) with some suitable material—a piece of old gum boot top will answer. This may be tacked securely to the float. The hole in the spile should be small, so that the flow of milk through it when in use shall correspond with the natural flow from the cow's udder. As the milk in the pail is used, the float follows downward, enabling the calf to get all the milk in the pail. To prevent the calf from throwing the float out of the pail two cleats are tacked on inside of same, at B B. These cleats are so arranged that the float may be readily removed by the operator.

LEWIS CO., MO. G. W. WATERS.

[In connection with this, a portable stanchion may be used to advantage, when there are several calves to feed. This may be used in the barns or yard at all times of the year.

The calves run to the stanchions, when ready to feed, and are fastened in while feeding and until their noses are dry. This prevents their sucking each other's ears.

Several calves may be easily and properly cared for with such stanchions and the calf-feeder described above. It pays to bring up a bull calf in the right way, and when he is old he will not depart from it—if you can prevent it.—Ed.]

PROCESS BUTTER

From New York Produce Review.

The term "process butter" has become familiar to those who are operating constantly in the larger markets of this country, but to a vast majority of our people there is a vague, uncertain meaning to the word "process" applied to the product of the dairy, very many associating with it the thought of adulteration. A representative of the *Produce Review* recently secured considerable information regarding the manufacture and commercial importance of this article which will be of interest just now.

The history of oleomargarine is closely connected with all these manufactured products. It dates back to the Franco-Prussian war, when Dr. Megge, during the

siege of Paris, discovered a method of making a substitute for butter from beef fat. Dr. Megge was the original patentee of the process. Associated with him in the Paris office was Professor Paraff, who some time later came to this country and in connection with James Wilson and Professor Doremus organized a company with offices at 42 Broadway, this city. It was soon discovered that Professor Paraff was an adventurer, and that he had no right to make the goods in this country. This led Professor Doremus to send his son to France, who purchased for \$10,000 the right to manufacture oleomargarine under the patent. The United States Dairy Company was then organized, and James Wilson traveled about the country selling states rights to make the oil and butter. The business attracted attention at once and large plants were soon put in operation by the Hammond company at Detroit; the Western Dairy Co. at Cincinnati; the Union Stock Yard and Dairy Co. at Atlanta, Georgia, and Easterbrook at New Haven. There were also other plants at Albany and San Francisco. Varying results followed for some time, and it was not until Mr. Murray, of Richards & Murray, Chicago, discovered how to neutralize lard that it was a success. The formula then used by Mr. Murray was 63 per cent oleo oil, 25 per cent neutral lard and the balance of fats of creamery butter. From the large plant on River street, Chicago, the fine article of so-called "butterine" was thrown upon the market, which sold within one or two cents of fancy creamery.

The production of this bogus butter grew with such rapid strides that it soon imperiled the dairy industry of the country, and after several years of hard fighting such legislation was secured as has largely curtailed the sales of oleomargarine, both for home use and for export. When it became evident that the stamp of fraud would be put upon the traffic in these goods, men of inventive genius cast about for other methods of making an article which should have only the pure product of the cow but be so manipulated as to considerably increase the value of the original material.

About seven or eight years ago, Dr. Tower, after a good deal of experimenting, succeeded, through the process of melting and aerating butter and working in fresh milk with a centrifugal machine, in turning out so good an article that the Wayne county creamery was built at Detroit to make it on a pretty large scale. From that starting point the business has extended and there are now factories at Chicago and Elgin, Illinois; Owosso and Detroit, Michigan; Granite Falls, Minnesota; Sioux Falls, South Dakota, and possibly some smaller plants at other points. When these factories are running full force the total output is fully 400 tubs a day.

The exact method of making these goods is concealed from the public. A few favored friends have been allowed to inspect the works, and enough facts are known to give the positive assurance that nothing enters into the product but genuine butter, milk, salt and coloring matter. The assistant dairy commissioner for this district has had three samples analyzed, and the chemists have found no foreign substance. Some of our receivers have considered that this "process" butter was a menace to the traffic in the legitimate product of the creamery and the dairy, and that measures should be taken to stop its manufacture, but we do not regard it as such and believe that it has come to stay. So far as we can ascertain the process in brief is to buy up the fresh rolls, either from farmers or ladders, melt them into oil, which is run through a fine sieve, aerated or deodorized, and chilled by falling on ice or the side of a cold drum; it is afterwards melted and, with twice the quantity of milk, run through a centrifugal to effect a perfect amalgamation. It is then churned, worked, salted, etc., and packed ready for market.

The character of the manipulation is such that it is difficult to control all the elements that enter into it, and this results in a good deal of irregularity in the quality. A brand that is fine this week may be decidedly off next week, or there may be much difference in the tubs in the same shipment. This is why the business is so hazardous from a maker's standpoint. It has been demonstrated that old butter—creamery, ladders, etc.—does not make so good an article as all fresh stock, and it is therefore not used except when fanciest butter is high and the margin is wide. The idea is to take the same class of stock and make a higher grade of butter than can be produced by the ladders.

These "process" goods are sold intelligently from first hands, the jobber knowing just what he is getting, but they generally lose their identity by the time they reach the consumer. Good flavor and character are the rule, but having been once melted the butter is sensitive to heat and quickly loses the freshness and flavor which commend it to buyers. There is an after taste that is objectionable to many, and some lots become tallowy. Experienced buyers discountinue using it as soon as warm weather comes on, and most of the plants then shut down for the summer.

The commercial value of this butter varies with the season and with the quantity of fresh creamery that is offering. Some of the best makers have figured on three cents a pound below finest creamery, but the difference has widened of late and standard marks are now selling generally at 10 cents, with other grades from 15 cents downward to 12 cents. Demand has not been so good this winter as last, and there is some uncertainty about the future of the trade. Exporters have refused to send it across the water, fearing that there would be a suspicion as to the purity of the stock.

BRONCHITIS. Sudden changes of the weather cause Bronchial Troubles. "Brown's Bronchial Troches" will give effective relief.

Mrs. Kate Etter

OF MISSOURI,

Is Cured of Heart Disease by Dr. Miles' New Heart Cure.



MRS. KATE ETTER wrote from Neosho, Mo., in March last. "Two years ago I was severely troubled with my stomach and kidneys, and a great affliction so unnerved me that my condition became alarming. The telegraph brought a prominent physician in a consultation which resulted in no benefit. I went to Wyoming for change of climate without



benefit, was brought back to Atchison where nurses worked with me night and day to keep me alive to reach my friends here. My heart became so bad that my friends gave up all hope. I began taking Dr. Miles' Heart Cure and Nervine alternately and was restored to health. It is now months since and I am perfectly well."

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DR. MILES MEDICAL CO., Elkhart, Ind.

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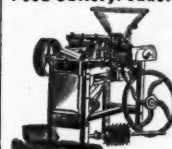
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THE MICHIGAN FARMER.

—AND—
State Journal of Agriculture.

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DETROIT, SATURDAY, FEB. 13, 1897.

This paper is entered at the Detroit Postoffice as second class matter.

AND now it is announced that the gentlemen in the legislature from Detroit, or some of them, propose to move the State capital to this city, and put up a capitol building in a park to be laid out on the river front. Of course nothing will come of this precious scheme. Detroit is not the whole State, but only a small part of it, and her citizens can make up their minds to have Lansing still remain the capital of the State. The next move suggested will probably be to lift up the "fruit belt" and carry it to the bank of the Detroit river, or move the Calumet and Hecla mine to Belle Isle as an accessory to the beauties of Detroit's finest pleasure resort.

ACCORDING to United States Commercial Agent Angell, at Roubaix, France, there is a market awaiting American oak lumber in that country. He says, in a report to the state department, that one firm alone stands ready to take \$400,000 worth annually in place of Hungarian oak if proper connections can be made with American lumber exporters. Mr. Angell supplies his report with a diagram showing how the wood should be sawed, and offers to put American exporters in communication with the seekers after lumber, upon application. Some of our Michigan lumbermen should investigate this proposed trade, as our state could supply a large amount of good oak lumber.

As an illustration of the unfair and conscienceless methods that a certain element among British millers are using in the effort to stop the growing importation of American flour, United States Consul Taney, at Belfast, has forwarded to the department of state, extracts from Irish trade papers making the broad charge that all of the American flour is adulterated. According to this remarkable statement, the adulterant is corn meal, which is so finely ground as to defy detection when mixed with flour. The very whiteness and purity of our flour is cited in proof of the charge, for it is said that as the British millers can make only yellow flour from Indian wheat, the Americans must add the cornmeal, which is of a bluish tint, as a corrective to make their flour white. The consul says this sort of argument is used in different parts of the kingdom with evil effect.

SECRETARY Morton has declared a quarantine against cattle in the following States on account of the prevalence of Texas or splenic fever: California, Texas, Arkansas, Louisiana, Mississippi, Alabama, Florida, Georgia, the Carolinas, and Virginia, portions of Tennessee and the Indian territory. The quarantine goes

into effect on Monday next, February 15th. During that period no cattle are to be transported from the territory indicated to any portion of the United States above, north, east or west of the federal quarantine line, except by rail for immediate slaughter, and when so transported certain regulations are to be complied with. These include the watering and feeding of such cattle apart from other cattle when unloaded for such purpose; their isolation in separate pens at points of destination, the placarding of cars carrying the animals, and the disinfection of the same when the journey is completed.

A GROSS MISSTATEMENT CORRECTED.

The Detroit Free Press of January 19th contained a dispatch from its Washington correspondent, of which the following extract is a part:

"Chairman Dingley is devoting his time almost exclusively to the woolen schedule, and finds that it is a much more difficult problem to reach a satisfactory conclusion on all points that has been the case in the drafting of any tariff bill of recent years. The attitude of the woolen manufacturers before the committee was peculiar. They united in stating that the industry was at a low ebb which, however, they attributed more to general trade depression than to the effect of the Wilson bill. They argued that a tariff bill should be as stable as possible and they deprecated the disturbance which would inevitably follow the enactment of a new woolen schedule. Mr. S. N. D. North, Secretary of the National Association of Woolen Manufacturers, used the utmost diplomacy in referring to the question of raw wool, but he made it quite clear to the committee that the manufacturers would be well pleased if wool could remain on the free list. The sympathetic utterances of several of the woolen manufacturers in referring to the condition of the wool growers appear to have been purely sentimental, and to have had no reference to the real conditions of the manufacturers regarding tariff duties in the interest of the industry which uses wool for its raw material."

Being somewhat conversant with the views held by Mr. North upon the question of the wool tariff, through his published utterances and writings, and realizing what an effect this statement might have in misleading wool-growers as to the present attitude of Mr. North and the National Association of Woolen Manufacturers, the editor of the FARMER cut out the above extract and forwarded it to Secretary North, requesting him to state whether the statements attributed to him were in accordance with facts. On the 5th inst. we received the following reply:

To the Editor of the Michigan Farmer.

MY DEAR SIR:—Constant absence from home has prevented my earlier attention to your favor of 23d ult. You are entirely right in supposing that the extract you send me does not represent my views, or anything I have ever thought or said, in public or private. I shall send you in a day or two, as soon as it comes from the printer, my recent statement before the ways and means committee, in which you will find it stated, without any "diplomacy," that the manufacturers affirmatively favor a duty on wool equal, in its equivalent, to the highest rates of duty imposed upon any manufactured article. It is impossible to state my own views any more concisely or unmistakably than in that sentence. There is no need or occasion for any antagonism or controversy between wool-grower and wool manufacturer. The attitude of the latter towards the former is unequivocally friendly; and he seeks now for such a revision of the tariff as will promote the best interests of both. He thinks that can be done only by rates of duty that will be accepted by the American people as fairly reasonable, both on wool and on woolens, and that will thus contain the promise of permanence. He deprecates a tariff so ultra that it is likely to be followed, four years hence, by another free wool tariff. He believes that the farmer, on full consideration, will agree in this view. There is to be a conference of growers and manufacturers in Washington on the 9th inst., at which it is hoped and believed that a complete understanding will be arrived at, to the mutual advantage of all concerned.

Thanking you for the opportunity to set this matter straight in your valuable journal, I remain
Very truly yours
S. N. D. NORTH, Sec'y.

While these statements of Mr. North are in no wise different from those he has always expressed when the question of a wool tariff has been under discussion, we thought it but right our readers should know, through its official representative, the attitude of the National Association of Woolen Manufacturers to wool-growers.

The statements of the reporter of the Free Press are thus shown to be utterly false, and, to be honest, that journal should publish the above letter from Secretary North, so as to place that gentleman right before its readers, and incidentally call its correspondent to account for his falsification of facts.

MICHIGAN BUTTER AT ELGIN PRICES.

To the Editor of the Michigan Farmer.

There has been running in the Detroit papers this winter what we, here at Ypsilanti, consider a great injustice to the people of Michigan, or at least a certain class. What we refer to is the quotation on butter sent out in the Detroit papers.

So as to have no misunderstanding in this matter I will state that in the first place I am an American; second, this is Michigan, my Michigan; third and last, I am at Ypsilanti running a creamery, and anything that is working an injustice to that creamery I shall at all times with money, voice and pen endeavor to work against. The idea that Michigan creamery butter should be quoted two cents per pound less than Elgin, is an injustice to the butter industry of this State that I have no words that will express.

To show where the injustice comes in, let us first state that a short time ago one of our State institutions asked us to quote a price at which we would furnish 150 pounds per day of our best butter. We quoted Elgin price, and after a suitable time had gone by and we had had no response from them, we wrote their steward to kindly let us know what the trouble was that we got no orders, and he very kindly tells us the price is too high, as he understands Elgin is higher than State creamery, and the only way any person can understand such a thing is by reading the quotations in Detroit papers. The loss to this creamery, or some other creamery in the State, we figure at two cents per pound, or \$3 per day, or \$1,000 per year.

There are plenty of creameries in the State to furnish butter to our State institutions that are shipping to eastern markets and are either selling at Elgin quotations f. o. b. at their station or having it sold by commission men for the highest quotation of Elgin in either Boston, New York, or Philadelphia, and in order to prove this statement we will deposit (\$100) one hundred dollars in the First National Bank at Ypsilanti, and any of the aforesaid papers that wish to take the matter up may deposit a like amount, the party losing to forfeit the one hundred dollars, and the aforesaid bank shall return the winner his money and the loser's money shall be given to the Home for the Feeble Minded.

Hope you may look into this matter in the true light and see to it that the people of Michigan are not imposed upon longer than is necessary.
AZRO FLETCHER.

A few days after this letter was received, Mr. Fletcher sent us one from a Detroit commission house, which reads as follows: Ypsilanti Creamery.

Dear Sirs:—We have some call for Golden Rod. If you can, would like you to make us a small shipment—5 or 10 tubs—so that we can keep in line. We are selling the Grass Lake Creamery at 21c. Yours ought to bring that or more.

We can understand just how Mr. Fletcher feels about this matter, and of course other Michigan creameries which are selling their product at as good prices as Elgin, or any other butter in the market, feel the same way. But let us assure Mr. Fletcher that the blame does not rest upon the papers of this city. They do not make the prices—only quote those furnished them by leading houses in the trade. We have frequently stated in the FARMER, and not long ago either, that the quotations on both creamery and dairy butter were for what came into the city consigned to dealers or merchants without any previous arrangement regarding prices, and that a considerable amount of Michigan butter, both creamery and dairy, sells at prices one to two cents above the highest market quotations. Let us quote from the market report in the FARMER of January 23d, page 70, in corroboration of this statement:

"Some Elgin creamery, or at least what is claimed to be, is selling here at a cent above Michigan; but it may only be extra good Michigan, of which a considerable quantity is sold here on contract at better than quoted Michigan prices."

But dealers will not quote special prices for a special brand of butter, because they assert it would be misleading, and they give the average range on all the creamery received in a general way as the ruling quotations.

In the case of both the Ypsilanti and Grass Lake creameries we knew, because we had been informed by their managers, that they were selling their butter on a level with the best Elgin, but if we quoted that price, and other creameries shipped here and were disappointed, how would they regard the matter, especially when the dealers told them that the quotations published were not those given us? What would Mr. Fletcher do in such a case?

We had just this experience in the case of apples only a few weeks ago. We quoted fancy fruit at 50 to 75c per bbl. above the price quoted for choice. Some barrels of fancy, carefully selected fruit, free from bruise or scab, even in size, wrapped separately in paper, had sold at \$2.25 per bbl. One of our subscribers wrote in and complained about the quotation—said his com-

mission merchant would not pay such price. But that price can be obtained to-day for packages put up as described, at the big hotels, or from those keeping fruit stands. The party who sells will have to come to the city and arrange for the sale in advance, however, for he will never get that price by consigning to a commission house and taking the run of the market.

We believe a great deal of the Elgin creamery sold here never was outside of Michigan, that the grade of creamery selling at 17 to 18 cents is simply a fine article of dairy, some of which we know is selling on private contract at 20 cents per pound.

What is the remedy? A board of trade, where prices can be established upon actual sales, and quotations on the choicest be given as well as those on ordinary to good butter. But we want to impress it on our correspondent's mind that the Detroit papers are not at the bottom of the trouble. It arises from two facts: First, that for years the bulk of Michigan butter was of poor quality, and many believe no really good butter is made in the State to-day; second, that Elgin, through its board of trade, has advertised the merits of its butter, and it is now used as a standard with which to compare others. It is quoted in the New York and Philadelphia papers at 1¢ above the best creamery made in those states. We think, however, a good deal of the make of those states sells on a level with Elgin, and under its name.

THE GREENBACKS.

To the Editor of the Michigan Farmer.

On page 67, MICHIGAN FARMER of Jan. 23d., bottom of first column, you say, in answer to question, "Greenbacks are redeemable in gold when presented at any U. S. subtreasury." Now, if you mean by that, that it is the practice of the present administration and the one immediately preceding, to redeem greenbacks in gold, I can see no chance to quarrel with you. But if you mean that that is the law, or that there is any warrant for it, many would take issue with you. The greenbacks are United States notes—legal tender—nothing on the face of them showing how or where they are to be redeemed; but the law provides that they be redeemed in coin when presented in sums of \$50 or over at the subtreasury in New York or San Francisco. The term coin has been held to mean gold or silver at the government or debtor's option, until 1891, since which time the government has very generously given the option to the raiders of the treasury.

From 1878 to 1891—thirteen years—there were in round numbers \$34,000,000 of greenbacks redeemed, largely in silver—about two and a half millions a year. In 1891 Secretary Foster gave the treasury raiders the option, and in less than four years \$351,000,000, an average of nearly 90 millions a year, had been redeemed—the whole issue of \$346,000,000 and five millions besides—and \$262,000,000 of bonds had been issued. At the same time the government held more than \$400,000,000 of silver dollars in its vaults that by law was just as good to redeem greenbacks in as the gold.

If a farmer or business man would do business in that way, the probate judge of his county would have a job very quickly, and if a guardian was not appointed the insane asylum would have another inmate sure.

CASS CO.

M.

[Our correspondent should remember that when the greenback was issued, it is doubtful if there were any American silver dollars in circulation, the use of that metal being entirely confined, for many years previously, to subsidiary coin—"small change." Nor was there any probability that any silver dollars would be coined, owing to the fact that silver was proportionately higher than gold. While the act, therefore, uses the word "coin," it is quite certain only gold was meant. But we do not claim that "coin" does not mean gold and silver, and that it is not legal to redeem greenbacks in either metal. We do not understand that the treasury takes that position either. As we understand it, those who bring notes for redemption are offered their choice, and that they are allowed this choice so as to not discredit either one. To force the silver upon a creditor, it was held, would still further reduce its value and cause gold to appreciate. Our correspondent can settle for himself the question whether this was judicious or not; we only call attention to the fact. There would have been no raid on the treasury for gold, and no call for bond issues, if the government's revenues had been equal to its necessary expenditures—at least there had not been up to 1893.

THE Selma cotton mills, at Selma, Ala., containing 10,000 spindles, have recently been put in operation, and the new Dixie cotton mills, at La Grange, Ga., which contain 15,000 spindles, have started up.

Change in Combination Rates.

Cincinnati Weeklies.

The Cincinnati *Enquirer* has advanced its price on its weekly from 50 to 75 cents. We have been offering the combination at \$1.10, but after March 1, on account of the advance made by them, our price for the two will be \$1.50, so that after March 1 we will accept no orders for less than \$1.50. Any sent at less than that will be cut on time. The Cincinnati Weekly *Commercial Gazette* still remains the same, \$1.10. This is a remarkably low combination and as the tendency seems to be up, we would suggest that all wanting a good, live Republican newspaper should take advantage of this offer while they can, as the price may change without notice.

THE removal of quarantine regulations on Canadian cattle has had a disastrous effect upon shipments of cattle from this and other western states to the Buffalo market. The Buffalo *Mercantile Review* estimates the decline on common to fair butcher's cattle on Monday of this week at 15@20 cents per hundred as the result of the presence of 39 loads of Canadian cattle, which were mostly of this description. Several loads of Canadian feeding cattle were on sale, and went to Ohio parties. This cut off the usual demand for Michigan, Ohio and western feeders, and they ruled lower. Some shippers must have met with severe losses in consequence of the condition of the market.

STATE CROP REPORT FOR FEBRUARY.

The monthly crop report issued by the Secretary of State says:

The ground in southern Michigan was lightly covered with snow much of the time during January, but not sufficiently at all times to afford full protection to the wheat plant. On the 15th of January the average depth in the southern four tiers of counties was 1.29 inches; in the central counties, 1.44 inches, and in the northern counties 2.07 inches. At the end of the month the average depth in the southern counties was 8.26 inches, in the central, 4.77 inches, and in the northern, 5.88 inches.

In reply to the question "Has wheat during January suffered injury from any cause?" 130 correspondents in the southern counties answer "Yes" and 360 "No"; in the central counties 64 answer "Yes" and 94 "No," and in the northern counties 33 answer "Yes" and 66 "No."

The total number of bushels of wheat reported marketed by farmers in January is 616,532, and in the six months, August-January, 6,305,775. The amount marketed in the six months, August-January, is 391,949 bushels more than reported marketed in the same months last year.

At 28 elevators and mills from which reports have been received there was no wheat marketed during January.

The condition of live stock is about 97 per cent, comparison being with stock in good, healthy and thrifty condition.

NEWS SUMMARY.

Michigan

Three Rivers business men are planning to raise funds to secure the location there of a large creamery.

Elkton citizens offer a bonus to anyone who will erect a flax mill in the village, and also guarantee to raise 300 acres of flax the first season.

The shortage of Village Clerk E. J. Wagner, of Allegan, who killed himself last Saturday, is \$1,000. Last year he was \$140 behind, but the matter was hushed up.

The churches of Byron were obliged to close last Sunday on account of the prevalence of diphtheria in that village. Several factories have been closed for the same reason.

General Shakespeare, department commander of the G. A. R., has announced that the next annual State encampment will be held at Greenville, April 7th and 8th., 1897.

Gov. Pingree last Saturday released on parole from the prison at Jackson "Billy" Considine, of Detroit. Considine was convicted of larceny three years ago and given a five-year sentence.

A. C. Bird of Highland, and Frank Marston, of Bay City, have been named by Gov. Pingree for members of the State agricultural board. The nominations have not yet been confirmed by the Senate.

The big hemlock tannery at Munising, has commenced grinding bark. Between 150 and 200 men will be employed the year around in the tannery, and 10,000 cords of bark will be ground up annually.

John F. Bray, a prominent citizen of Pontiac, died recently. He was nearly 90 years of age and had lived in Pontiac and vicinity for almost 50 years. He was nominated for president of the United States in 1872 by the Socialistic Labor party.

Maybury & Co., of Detroit, have been awarded the contract for furnishing street

letter boxes to the government for four years beginning July 1 next. The contract for steel mail box posts was awarded to the Bond Steel Fence and Post Co., of Adrian.

State Oil Inspector Neal McMillan has filed his annual report with Gov. Pingree. It shows that the net proceeds of the office for the year were \$11,625 after all expenses were paid. The inspection, however, fell short nearly 25,000 barrels from the previous year.

A farmer living about five miles south of St. Joseph claims to have found an iron box containing \$10,000 one day last week. He was excavating for the purpose of building an addition to his house. The money is supposed to have been buried by the Indians.

Farmers in the vicinity of Menominee are said to contemplate erecting a beet sugar factory, as it is believed that beets can be profitably grown there. A number of farmers there have announced their intention of planting extensive areas of beets the coming spring.

Reports from Benton Harbor are to the effect that prominent fruit-growers in that section consider the early varieties of peaches badly injured by the recent severe weather. It is said that the Crawford variety suffered most. Trees uninjured by the cold are reported to have fewer buds than usual, probably owing to the enormous crop of last year.

Several hundred employees of the Chicago & West Michigan railway system met at Grand Rapids last Saturday and adopted resolutions which declare their opposition to the two-cent fare bill and other railroad measures now before the legislature. The employees voted to send a committee to Lansing to lobby in their interests.

Receiver Foster, of the People's Savings Bank, of Lansing, has been granted an order by the Circuit Court to levy an assessment of 100 per cent upon the stock of the defunct bank for the benefit of depositors. It being apparent that the assets of the bank will not be sufficient to pay depositors in full. If the stockholders do not pay the assessment the receiver has authority under the order to commence suits to enforce its collection.

The National Linseed Oil Co. has filed a big mortgage for \$1,500,000 covering all its plants, of which the Detroit Linseed Oil works is a part. The instrument runs for fifteen years, and the interest is payable at the office of the Central Trust Co., of New York, at 6 per cent. The mortgage covers plants in the following cities: St. Louis, Boston, Chicago, Buffalo, New York, Detroit, Piqua, O., Lacrosse, Wis., St. Paul, Burlington, Ia., Dubuque Ia., Sioux City, Des Moines, Iowa City, Marshalltown, Ia., Mankota, Minn., Kansas City, Duluth, Indianapolis, Leavenworth, Omaha, St. Mary's, O., Portland, On., Logansport, Ind., Racine, Wis., Dayton, O., Mansfield, O., Gilling, Ill., Kankakee, Ill., Topeka, Kas., Cedar Rapids, Ottumwa, Ia., Richmond, Va., Minneapolis and Marion, Ind. It is claimed that the mortgage was placed merely for the purpose of allowing the company to render itself independent of the banks.

General.

A disastrous freight wreck occurred on the Illinois Central road near Tolono, Ill., last Saturday. Thirty head of fine horses, which were being shipped to Tennessee, were killed.

John Quincy Adams Herring, of Baltimore, the oldest managing director of the Adams Express Co., died suddenly in New York city Tuesday afternoon of heart failure, aged 72 years.

Thousands of persons in northern Louisiana, where the severe drouth practically ruined the cotton crop, are reported to be in destitute circumstances and will probably need help before the next harvest can be secured. It is said that the yield of the last cotton crop did not average one bale to each ten acres in cultivation.

Senator Morgan, the champion of the Nicaragua canal bill, has announced that that measure will be abandoned for the present, as it has become evident that it can not be forced to a successful issue in the present Congress. Senator Morgan will probably call it up during the extra session which, it is expected, will be held soon after the inauguration of the new administration.

The Homestead steel works of the Carnegie company, at Pittsburgh, started running on full time in all departments last Monday, giving employment to 4,000 men. The Westinghouse Electric Co., of East Pittsburgh, the Braddock wire works, at Braddock, and several other manufacturing plants in western Pennsylvania have been put in full operation during the past week.

Chicago health officials claim to have made the discovery that horse meat is being sold in that city under the guise of fluid extract of beef. A Chicago packing house is said to be putting up this meat, and the firm will be prosecuted for violation of the ordinance which forbids the sale or slaughter of horse flesh for human food without first paying a license of \$1,000.

President Cleveland has signed, on the recommendation of Secretary of the Interior Francis, an order reducing the number of pension agencies in the United States from eighteen to nine. The object of the order is to effect a large saving to the government without inconveniencing the pensioners. The secretary demonstrates that by this reduction of the pen-

sion agencies the cost of distributing pensions can be reduced at least \$150,000 per annum. This order is to go into effect Sept. 1, 1897. The Detroit pension office is to be transferred to Indianapolis.

Cattlemen in the bad lands section of South Dakota will ask the aid of the state legislature in ridding the region of the gray wolves which continue to do great damage to their herds. The cattlemen some time ago formed an organization having for its object the annihilation of gray wolves, upon which a bounty of eight dollars each was offered. The fund used for this purpose was raised by assessing members of the organization two cents each for each animal owned by them. During the past season three assessments have been levied upon the members, but there has been no appreciable decrease in the number of wolves. This has become burdensome to the cattlemen, and the state will now be asked to protect the cattle interests.

Foreign.

There is a measure before the English parliament which proposes to confer upon women the privilege of electing members to parliament. The bill has passed a second reading and may go through.

The boundary difficulty between Great Britain and Venezuela has at last been amicably settled, the arbitration committee appointed by President Cleveland having succeeded in adjusting matters to the satisfaction of both countries. A treaty, which practically settles the controversy, has been signed by representatives of both countries.

Spain now seems inclined to grant the reforms which the Cubans long ago desired. In fact the mother country has gone so far as to formulate plans for the creation of a Cuban assembly, which plans have been signed by the queen regent, but the Cubans ridicule the idea and state that they are fighting for independence. There has been no let up in hostilities on the island and Gen Weyler appears to be making no progress.

Dispatches from Athens tell of a fearful massacre on the island of Crete. Desperate fighting has taken place between the Muslims and the Christians, and the city of Canea is in a state of anarchy. The city was set on fire, and many Christians, who had locked themselves in their houses, were driven out by the flames only to meet death at the hands of the Turkish soldiers. It is claimed that not less than 300 persons have been killed and much property destroyed.

Home Seekers' Rates to Southern and Western Points, via Michigan Central.

On certain dates each month special low rates are made to southern and western points to Home Seekers by the Michigan Central. Full information relative thereto may be secured by writing Joseph S. Hall, Michigan Passenger Agent, Detroit, Mich.

It gives us pleasure to call our readers' attention to the value of Brown's Bronchial Troches as a remedy for throat affections. The fact that these troches have been manufactured and sold for over fifty years, is an evidence of their real merit. While it is true that Nature does not endow everyone with a sweet, well modulated voice, yet there is no voice so discordant but that by care and training it may be rendered pleasant, in fact all persons who make an abnormal demand on the vocal chords, will find Brown's Bronchial Troches soothing, strengthening and healing, quickly relieving hoarseness and sore throat.

Our Combination List.

We have arranged the following clubbing list with a view of giving our subscribers the best papers published and at a price that will save money.

Present subscribers to any of these papers can order the combination they desire and have their present subscription dated one year ahead.

No orders for other papers will be received unless accompanied by an order for the MICHIGAN FARMER.

We will be pleased to quote prices to those parties desiring more than one paper in the following list.

The first column gives the price at which we will receive orders for both papers one year. The second column gives regular price of two papers.

Agents should see our agents' terms for commission on these combinations:

Name of paper.	Combination price of two papers.	Regular price of two papers.
Free Press, Detroit, semi-weekly.....	\$1.40	\$2.00
Journal, Detroit, semi-weekly.....	1.40	2.00
Tribune, Detroit, weekly.....	1.10	1.75
Enquirer, Cincinnati, O., weekly.....	1.20	1.50
Commercial-Gazette, Cincinnati, O., weekly.....	1.10	1.50
Tribune, New York, weekly.....	1.30	2.00
World, New York, tri-weekly.....	1.50	2.00
Blade, Toledo, O., weekly.....	1.45	2.00
Inter-Ocean, Chicago, Ill., weekly.....	1.30	2.00
Hoar's Dairyman, Ft. Atkinson, Wis., weekly.....	1.65	2.00
Jersey Bulletin, Indianapolis, Ind., weekly.....	2.25	3.00
Holstein-Friesian Register, Brattleboro, Vt., semi-monthly.....	1.50	2.00
Swine Breeders' Journal, Indianapolis, Ind., semi-monthly.....	1.49	2.00
Gleanings in Bee Culture, semi-monthly.....	1.50	2.00
American Swineherd, Chicago, Ill., monthly.....	1.20	1.50
American Sheep Breeder, Chicago, Ill., mo. 170.....	2.00	2.00
Ohio Poultry Journal, Dayton, O., monthly.....	1.35	1.65
Cosmopolitan, New York, monthly.....	1.80	2.00
Household, Boston, Mass., monthly.....	1.50	2.00
Demorest's New York, monthly.....	2.50	3.00
Munsey's Magazine, New York, monthly.....	1.80	2.00
Ladies' Home Journal, monthly.....	1.70	2.00
Breeders' Gazette, Chicago, weekly.....	2.00	3.00
Peterson's Magazine, New York, monthly.....	1.65	2.00

A Plant Feeds

on its seed till it grows a root that can forage for it. The process of sprouting changes the hard seed into soluble, digestible food.

Malting is sprouting. Malt Extract is plant food transformed into human food made easy of digestion.

Pabst Malt Extract

The "BEST" Tonic

is the purest and most nourishing of Malt Extracts, the most strengthening and digestible of foods.

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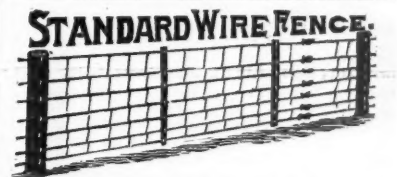
HARTMAN STOCKADE WIRE FENCE

A cheap, durable, lasting fence for all kinds of uses. Horses, Cattle, Sheep, Pigs, and Poultry. Fits all cases. No breaking in winter, nor sag in summer.

ALL ROUND FENCE

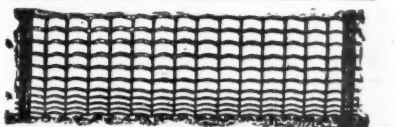
Made of the best Galvanized Steel Wire. 24 to 60 in. high. Is easily put up in a roll. Send for prices & circulars. It saves money.

Hartman Mfg. Co. Manhattan Bldg., Chicago, Ill. 277 Broadway, N. Y. Ellwood City, Pa.



STANDARD WIRE FENCE.

\$5 to \$8.50 for machines to weave your fence at 15 to 25c. per rod. Weaves 100 rods per day. Strongest endorsements. Send for illustrated pamphlet giving valuable information on fence building. Unparalleled chance for agents to sell fence and machines. Standard Wire Fence Co., Canandaigua, N. Y.



Better Late Than Never

The farmer who begins using Page fence now, is ten years behind those who started out with us. But he will gain nothing by waiting. He or his neighbors have tried the substitutes and found them wanting. Let him now adopt the "standard" of the leading railroads, and settle the question for good.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

WOVEN WIRE FENCE

Best on Earth. Horse-high, Bull-strong, Pig and Chicken-tight. With our DUPLEX AUTOMATIC Machines you can make 60 rods a day for 12 to 20 cts. a Rod. Over 20 styles. Catalogue Free. KITSILMAN BROS., Box 72, Ridgeville, Ind.

SINGLE WIRE

will not stand your wintry blasts nor summer's heat. This cable wire that will never tire.

LOW COST,

quickly and easily built, and pleasant to look at is what makes our machines and fence so popular. Free samples and free information.

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CHURCH STEEL SPRING LOCK

WIRE FENCE AND GATES.

Have No. 7 Double Steel Pickets. Galv. Steel Lock that locks line wire to picket. Cannot Slip. Write for Free Sample, Circs. and Terms to Agents. The Church Manfg. Co., Box 425, Adrian, Mich.

INJUSTICE OF THE SINGLE TAX THEORY.

[A paper read by Mrs. R. M. Brownell, of Lapeer Co., Mich., at a farmers' institute held at London, Monroe Co., in January.]

Advocates of the single tax theory propose that no property save land values shall be subject to taxation, and that all building improvements shall be exempted. This name is misleading; it should be called Land Tax theory.

Henry George is the recognized exponent of this plan, and "Progress and Poverty" his chief work on the subject. He changes some common meanings in it, using the word "rent" for "land ownership or values, and assumes that land values are never the results of labor or the products of human exertion. The following extracts from his book formulate the leading principles, or lack of principles, as it may be, of the single tax doctrine, and show his reasons for claiming a moral right to adopt such an unjust measure:

"The common right to land has everywhere been primarily recognized, and private ownership has nowhere grown up save as a result of usurpation."

"The remedy, then, for the unjust distribution of wealth is to make land common property." "It is not right that there should be any concern about compensating the proprietors of land."

"Private ownership of land is not merely a robbery in the past; it is a robbery in the present, etc."

"Justice would be satisfied, and all economic requirements met, by abolishing private titles, declaring all land public property and letting it out to the highest bidder, under such conditions as would sacredly guard the private right to improvements."

"But this would involve a needless shock, and a needless extension of governmental machinery. * * * What I therefore propose is to appropriate rent (land values) by taxation. * * * We may put the proposition into practical form by proposing to abolish all taxation save that upon land values." "By making land common property in the way proposed, we shall be giving an enormous impetus to progress."

In chapter III of Book IX, he states "the effects of this remedy" in part as follows: "Take the homestead owner, or the farmer; the selling value of his land would diminish; theoretically, it would entirely disappear; but his land would serve his purpose as well as ever. * * * Though he would have more taxes to pay on his land, his house and improvements, and all his personal property, all that he eats, drinks and wears, would be exempt."

Do not imagine that you will find these extracts thus connected, for they are separated by page after page of sophistry and philanthropic pretense.

The whole trend of this doctrine is to destroy, not to build up. If adopted it would destroy all government. If no one had an individual right to earn, buy, inherit or devise landed property, the enforcement of laws to protect life, liberty and any property rights would be impossible.

Compel land to pay all the expenses of government, and no one would wish to invest money in one acre of it, unless allowed exorbitant rents.

Every one knows that the real estate bears now the larger part of taxation; never evading its payments as personalities often do.

According to statistics of 1890, the bare land values of the cities and farms of Michigan were equal—each being one-fourth of the bare land value of the State.

If single land taxation were in force, which would exempt the \$140,000,000 of personal property values—consisting of monies, credits, stocks, goods and chattels—these values must be spread back on the bare land valuations. The farmers would then have to pay one-fourth of this amount now collected from these sources, a great injustice, as they own but a small share of them. A farm or city lot with magnificent improvements, would pay no more tax than the adjoining humble home. By what fallacious reasoning can this be called a just distribution of taxation?

The buildings and household goods of the poor are practically exempt now in city and country, little value being assessed upon them, therefore, this kind of exemption would increase their taxes and rents, only favoring the luxurious homes; even the selling value of the little home would be taken from the owner under the proposed single tax conditions.

Think of the false assumption that "land values are never the results of labor or the products of human exertion, but are due to the fact that many people are congregated upon a small area."

People might sit at the foot of every tree in a wilderness for years, but if they never went to work to fell those trees, there would be no great rise in that land value, no matter how numerous the people. The government sells or nominally gives its land to actual settlers, but requires pioneers to pay an increasing tax as improvements enhance its value.

A tax is not "a fine on the industrious" as stated by single-taxers, but a regular payment to a grand, mutual, governmental life and property insurance company that insures the citizen, not against the natural elements, but against the outrages of the vicious, who would otherwise go unrestrained.

It insures an education to all youth who will accept it; also care, food and shelter to the helpless or aged when unfortunate—aye, or improvident.

It might be assumed the earth was the natural heritage of all mankind, if subsistence grew spontaneously, but workmen in nature's laboratory work more hours than

all others, ere they receive any returns, their cleared land being their sole product for this labor; even food cannot be obtained for it until the wilderness is subdued.

The spontaneous products of the soil are weeds and forests. Land owners must hire an army of laborers to eradicate the one, and to bring the other into a state of production.

Land is to food producers, what machinery is to manufacturers. Land owners are also antagonized by nature's forces more than all other property owners combined.

Wind storms devastate their lands; drouths and rains prostrate growing grains, insect life and the small wild animals take their toll, often an entire crop.

Fertility of soil must be kept up by expensive fertilizers or by irrigation. Even the energetic farmer would yield the contest under single land tax conditions.

We should not then "abolish all taxation save on land values" which by further increasing the cost of production, would surely raise the prices of rents and other necessities of life to all laborers?

Such a course would also destroy that earnest desire that most parents have to acquire homes for themselves and children, as "land value would entirely disappear" when lands would go "to the highest bidder" or the one with the most money.

"But if 'private land-ownership is usurpation' and if nature assumed the care of mankind from birth to death, why have babes ever been born helpless and naked in the Frigid zone? Why have not strength, judgment, sustenance and shelter been furnished them independent of parental or human care? Why was not the disposition given to these 'natural heritors of land' to go to work and improve it? The past has furnished opportunities for all.

The 3,000,000 aborigines in Australia of fifty years ago—only number 200,000 now; and the Indian race of North America is almost extinct, thus showing that land settlers increase the population, while a romantic life has ever decreased it. Had these races so willed these countries might have been tilled and owned by them.

A great part of man's life is lived in a state of dependence upon parent, child or other helper.

Parental love is the strongest tie that binds together the human race, overcoming even self in its efforts to provide for its offspring. It was the cause of the steady encroachment upon the wilderness of our forefathers, who even jeopardized their lives to clear their farms and to establish homes, often in danger from wild beasts; never knowing when the tomahawk and scalping knife might glitter above their heads, all for the sake of securing a home for their old age and one for their children.

Shall others who had the same opportunities, but too timid or indolent to improve them—shall they or their offspring now say, "You have no more right to this land than we." The right of the Creator to the material of which the universe is made might almost as reasonably be questioned.

The plan of life was never intended to be one of passive inactivity. It is a continual struggle for self and children if success is attained. True, children often float with the tide, after the prize has been won by brawn and brain of parents, but if they lose it, they must turn and strive for themselves.

To deprive one of the power to have a home of one's own would take from life its main charm.

I believe there are honest followers of this doctrine, but I also believe that the dishonest wish of some capitalist to avoid taxation on his personal property causes him to meet on a common ground the socialist who wishes to destroy all titles or government barriers to free plunder.

The millionaire corporations could well afford to buy and circulate Henry George's pamphlet if they do not now. I understand that a millionaire congressman worked one into the Congressional Record, thus circulating it at government expense.

This single land tax theory demands a free-for-all ownership of monies, corporate properties and individual luxuries and expects the home owners to give perfect titles to these kinds of properties at the sacrifice of their own. This doctrine is making insidious inroads in many states—farmers should watch it like a swamp fire. The influence seems to be drawn that city vacant lands pay little or no tax. On inquiry I have learned that nine lots, comprising one acre of vacant ground in Detroit, helped defray that city's public expenses \$24.60 in 1896. An 100-acre farm would pay a yearly sum of \$2460 at that rate.

I am not informed whether those potato growers paid the tax or not for the use of this land; or whether owners who bought land for speculation, six years ago, could get back their purchase money, but I imagine the single-taxer's term "unearned increment," for that period at least, has been almost a negative quantity. A just law favors no one intentionally.

What could be more just than that taxes should be collected on all properties owned or invested in a state, above the usual household exemptions; that all bona fide debts be exempted from the debtor's holdings, which would give the honest kind of single taxation.

CONSUMPTION CURED.

An old physician retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections; also a positive and radical cure for all Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper, W. A. NOYES, 820 POWERS' BLOCK, ROCHESTER, N. Y.

The Household.

CONDUCTED BY MRS. ELLA E. ROCKWOOD, FLINT, MICH.

We should be pleased to have any of our readers who take an interest in household topics, send in their views and opinions upon any subject which is under discussion, or which they wish discussed. This invitation is general, and we hope to see it accepted by many. Address all letters for THE HOUSEHOLD to Mrs. Ella E. Rockwood, Flint, Mich.

For the Michigan Farmer.
A PICTURE.

Before me lies a picture, lovely and fair to see,
Bringing peace and benediction on this fair day to me.

A face of noble sweetness,
Shining with Christ-like grace,
Modest, pure and holy,
Such is this beautiful face.

You say it is surely some singer,
Famed in lands beyond the sea;
Or an artist whose works of beauty
Make the face so dear to me.
Ah no, neither artist's nor singer's is this face of
Christ-like grace,
Nor saint, nor soldier, nor noble,
'Tis only my sister's face.

Only my sister's face!
Yet a place above kings and queens does she fill,
And singers, and artists, and sculptors,
For she doeth the Master's will.
L. M. B. to E. M. H.

MY DAUGHTER'S LEARNED TO COOK.

We used to have old-fashioned things, like hominy and greens,
We used to have just common soup, made out of pork and beans;
But now it's bouillon, consomme, and things made from a book,
And Pot au Feu and Julienne, since my daughter's learned to cook.

We used to have a piece of beef—just ordinary meat,
And picked pigs' feet, spare ribs, too, and other things to eat;
While now it's fillet and ragout, and leg of mutton braised,
And macaroni au gratin, and sheep's head Holland-aised;

Escallops a la Versailles—a la this and a la that,
And sweet bread a la Dieppoise—it's enough to kill a cat!
But while I suffer deeply, I invariably look
As if I were delighted 'cause my daughter's learned to cook.

We have a lot of salad things, with dressed mayonnaise,
In place of oysters, Blue Points fricasseed a dozen ways,
And orange roly poly, float, and peach meringue also,
Enough to wreck a stomach that is made of plated brass!

The good old things have passed away, in silent, sad retreat;
We've lots of high-falutin' things, but nothing much to eat,
And while I never say a word, and always pleasant look,
You bet I've had dyspepsia since my daughter's learned to cook.

—Good Housekeeping.

HOME CHATS WITH FARMERS' WIVES.

PRESERVING THE ANTIQUE.

The craze for antique furnishings has been in force for several years. Anything old, anything made and used generations ago, all at once became popular. Grandmother's spinning wheel is a curiosity, and these implements belonging to a dead and gone generation, whose wearing apparel depended upon their use almost entirely, have been eagerly sought for, and in some cases high prices have been paid to secure them.

In almost every family there are pieces of furniture, woven fabrics, brass fire-place sets, old silver or other relics which have been handed down from generation to generation. Sometimes these are prized as they should be, oftener they are lightly regarded and allowed to be devastated by the ravages of constant use. They should, by all means, be preserved, for they can never be duplicated.

Not long since I heard a friend bewailing the fate of some hand-made linen sheets, the work of her grandmother years and years ago. They were the possession of my friend's mother; then when she died were given to her children.

"Why," said she, "I have kept my linen sheet as sacredly as I have my Bible. I would not think of using it in any way which would wear it out. But what do you think my brother's wife has done with his? She has made it into towels and bibs for the baby."

Some people prize these relics of a by-gone day much more than others, yet even the most thoughtless must see that they can never be replaced. The time will never again come when the hand will bring forth from the loom the like of those beautiful pieces of linen or those wonderful coverlets. Of the latter, there are specimens frequently to be found around the country, but they are not generally prized as they should be.

In my own home we have several heir-looms and we are carefully preserving them for future generations. They increase in value with each passing year.

There is a big old-fashioned "secretary," dear to the heart of my paternal grandfather, made according to his instructions many, many years ago. It is of butternut, and fitted with numerous pigeon-holes and drawers. Here he has sat and composed his sermons which hurled fire and brimstone upon the heads of his impenitent hearers I have no doubt, as he was an old-time Methodist preacher.

"I suppose you use this only upon high days and holidays," said my metropolitan friend as she surveyed the wonderful blue and white coverlet which adorned the bed in the guest chamber of our home. It is radiant with birds of paradise, wreaths and vines, and large enough to cover a bed of most generous proportions and still leave considerable to spare. It is the work of fingers long since crumbled to dust. No one now-a-days could make such a bed spread.

Then there are the hand-woven woolen blankets which were quite commonly found in country homes not so many years ago. I can remember when there were several of them in our family. They were really beautiful, or at least we would think so now. One was of black and brown, such a pretty pattern, and another of broken plaid in white, blue and tan. I regret to say that these were worn out before we realized their true value.

Those among our readers who are the possessors of anything antique, will, I hope, preserve it. Do not let these articles be worn out. Rather buy others to take their places. Especially is this desirable regarding fabrics which wear much more easily than pieces of furniture. Don't allow that spread which represents the toil of grandmother's hands to be in regular service upon the hired man's bed, but replace it with one which you can get for a dollar and carefully preserve the other. Teach the children veneration for these treasures, so that when they pass into their care they will be appreciated.

Shakespeare says,
Imperial Caesar, dead and turned to clay,
Might stop a hole to keep the wind away,
but let not the work of our dead and gone ancestors be lightly esteemed. It were better to buy a bit of linen for the baby's bib, or a yard of flannel for a crib blanket or to cover the ironing board rather than use that linen sheet or grandmother's woolen blanket for such purposes.

Grandmother's time will long live in history and in the tales of her home life transmitted from generation to generation, but the product of her loom will, in the course of years, inevitably disappear. Let us do our part toward preserving these from annihilation.

Do you not enjoy listening to some old lady who tells how her mother used to spin and weave for the family? Each part of the operation is full of interest. We ask questions and in every way try to gain information regarding the process of evolution from flax to fabric which we can scarcely comprehend. We are told of the "home-spun," which was all that its name implies, of which the boys' and men's clothing was made, of the pretty plaids for the little girls' dresses, of the professional seamstress of the village who went from house to house in the pursuit of her vocation, cutting and making the clothing for the entire family, and families were families in those times, too.

We should treasure every particle, every scrap of these relics of days gone by, for we shall never look upon their like again.

REASON OR INSTINCT?

Long have I cared for and studied our brother spirits in fur and feathers, and I know that their actions are the result of thought, often apparently of reason. I have seen the evidences of thought in insects, and I will not say it is impossible even in vegetable life.

I have a hop vine which started to grow through a crevice in the woodshed. Apparently it looked around, didn't like the prospect, and withdrew. The next morning it was growing in a different direction on the outside. No one had touched it and the wind had not blown it about.

But I intended to tell you an instance of animal good sense. One day last summer I was sitting in my kitchen. A trap door opens into the cellar and still another door and stairway leads from the cellar outdoors. A strange black cat, looking gaunt and starved, came up through the open trap door of the cellar and stood before me looking up into my face with a mew. I stroked and petted her a moment, and noticing she was a nursing mother, I said,

Legal Department.

CONDUCTED BY EARL D. BABST
56 Moffat Building, Detroit.

RIGHTS TO GROWING CROPS ON MORTGAGE FORECLOSURE BY ADVERTISEMENT.—SUBSCRIBER:—A. has a mortgage on B's farm due April 1, 1897. If advertised and sold July 1st, 1897, and A. buys it, will the crops of 1896 belong to A. or B.?—B. has a right to complete possession and control of the farm until July 1, 1898, and can plant and harvest such crops as he chooses.

TAX TITLES—PRIORITY OF MORTGAGES.—G. E. C., Marion, Mich.:—1. What claim has a party to real estate who has a tax deed purchased over twenty-five years ago?—The deed confers no right of possession or use, but is a cloud on the title which the owner should remove either by negotiation with owner of tax deed, or bill to remove cloud. 2. What is law relative to tax deeds according to present statute?—The supreme court has recently held tax deeds under the statutes of 1891 and 1893 to confer absolute title. 3. Is a mortgage recorded first barred from being first mortgage, if it excepts a certain mortgage given at a prior date?—Yes, for it expressly gives notice of prior mortgage. As between the parties the mortgage executed first is the first mortgage. As to third persons the mortgage recorded first is the first mortgage. Mortgage in question gives express notice to all by reference to the prior unrecorded mortgage.

QUALIFICATION TO VOTE AND HOLD OFFICE IN SCHOOL DISTRICT.—R. C. P., Adrian, Mich.:—A. resides in X. county where he owns no taxable property but has real estate in Y. county. A. is a single man. Has he a legal right to vote at school meetings in the district where he resides, and can he legally fill an office in said district?—No. Section 17, page 93, Public Acts 1895, reads: "Every citizen of 21 years who has property assessed for school taxes in any school district and who has resided therein three months next preceding any school meeting held in said district, or who has resided three months next preceding such meeting on any territory belonging to said district at the time of holding said meeting, shall be a qualified voter in said meeting upon all questions, and all other citizens who are twenty-one years of age and are the parents or legal guardians of any children included in the school census of the district, and who have for three months, as aforesaid, been residents of said district or upon any territory belonging thereto at the time of holding any school meeting, shall be entitled to vote on all questions arising in said district which do not directly involve the raising of money by tax." As A. is not a parent or guardian and has no property in the district, he is not entitled to a vote in the school meeting and therefore cannot hold any school office.

DEFENDING SUIT AGAINST COUNTY—DUTY OF APPEAL IN SAME—RESPONSIBILITY OF OFFICERS ACTING JUDICIALLY AND ADMINISTRATIVELY.—F. J., Michigan:—1. In case a drain tax levied by the county drain commissioner is protested and suit is brought in time limited by law, who defends the township treasurer, the township, county or drain commissioner?—"In all cases where suit is brought against the collector arising out of the collection of any drain tax, the township or county, according as the tax shall be for a township or county drain, shall defend such officer in the same manner that he has now the right to be defended in the collection of general taxes."—Laws of 1893, page 335, Sec. 6. The prosecuting attorney in above case should defend county treasurer at expense of the county. 2. Should the township treasurer get defeated in a justice court, would he be under any obligation to appeal the case?—The township board must determine whether case should be appealed or not. The determination is within their discretion entirely. See Howell's Statutes 1740-75. 3. Contractor received order on drain fund. If, through a mistake of drain commissioner, the tax levied could not be collected, would the commissioner be liable to contractor?—It depends entirely on nature of mistake. There is no action for mistake of officer acting in a judicial capacity, but a public officer is liable to private individuals for injuries resulting to the latter from his failure to perform ministerial duties in which the latter have a special and direct interest.

NOTICE TO QUIT—TERMINATION OF TENANCY—RENEWING JOINT NOTE.—SUBSCRIBER:—1. I hold a joint note due this month, and the party giving note is unable to pay, but will pay interest. By taking and endorsing interest will both parties be liable, or shall I get a new note?—From the statement of your question we suspect that the note is not a joint note, but a joint and several note. If the note reads "We promise to pay," you should have a new note given for renewal; but if it reads "I promise to pay" and is signed by two or more parties, the mere endorsement of interest on the back with the consent of all the makers will be sufficient. 2. Publish terms of notice to be given by landlord to tenant to vacate premises which are rented by year for cash rent.—If the lease was for one year without any contingency, the mere lapse of one year will of course terminate the tenancy. If after the lapse of the year the tenant still remains on the land, or in

case of a tenancy from year to year, at the end of the year give the following notice: "To John Smith. You are hereby notified that you are required to quit, surrender and deliver up to me possession of the premises hereinafter described, which you now hold of me as my tenant. Said premises are described as follows, to wit: In the township of A, county of B, State of Michigan, February 10, 1897." [Signed]. On duplicate copy make affidavit of service before some notary. Notice must be served seven full days before you can commence summary proceedings.

The Markets.

WHEAT.

Values on Thursday stood about the same as one week previous on spot wheat, but lower on futures. To help the market a war scare was started, but it did not work well. Telegraphic advices are too quick to allow the market to be worked on alleged scares. The weakness in wheat is general in this country and Europe, and is helped by the present condition of winter wheat. We do not look for much improvement in values so long as weather continues favorable. Chicago, New York and Liverpool all showed a decline Thursday.

The following table exhibits the daily closing sales of spot wheat in this market from January 15 to January 11 inclusive:

	No. 1.	No. 2.	No. 3.
Jan. 15.....	90%	90%	86%
" 16.....	91	91	87
" 18.....	90%	90%	87
" 19.....	90	90	87
" 20.....	90%	90%	87%
" 21.....	90%	90%	86%
" 22.....	91	91	88
" 23.....	91	91	87%
" 24.....	90%	90%	87%
" 25.....	87%	87%	85
" 26.....	87%	87%	84%
" 27.....	86%	86%	83
" 28.....	85%	85%	82
" 29.....	86%	86%	83%
" 30.....	85%	85%	82%
Feb. 1.....	87	87	83%
" 2.....	87	87	83%
" 3.....	86%	86%	83
" 4.....	87	87	84
" 5.....	87%	87%	84
" 6.....	88%	88%	85
" 7.....	88	88	84%
" 8.....	88%	88%	84%
" 9.....	88%	88	84%
" 10.....	88%	88	84%
" 11.....	87	87	83%

The following is a record of the closing prices on the various deals in futures each day during the past week:

	May.	July.
Friday.....	87%	75%
Saturday.....	88%	76%
Monday.....	88%	75%
Tuesday.....	88%	76%
Wednesday.....	88%	75%
Thursday.....	87%	74%

The visible supply of wheat on Saturday last, as compiled by the N. Y. Produce Exchange, was 47,885,000 bu., a decrease of 1,706,000 bu. over the amount reported the previous week.

Here are the views of Mr. Pillsbury, the head of the milling business in Minneapolis, on the future prospects of wheat: "We decreased last year about 10,000,000 bu from February to July 1. If we decrease this year no faster than we did last, the whole visible will be down to 31,000,000 bu by July 1. But we are decreasing twice as fast as we did last year, which would put it down to 16,000,000 bu. Now Minneapolis alone has to have more than that by July 1. Duluth and Minneapolis received last year 36,000,000 bu from February 1 to June 27, inclusive, and from June 27 to September 1 they received 13,000,000 bu. This year they will not receive more than half that amount."

The Minneapolis Market record claims that the farmers of Minnesota and Dakota have 25,000,000 bu of wheat on hand which they can dispose of.

A large quantity of flour is reported as being shipped direct from Minneapolis to South Africa, the first instance of the kind on record.

A recent report to the Daily News from Odessa mentions in many of the southern governments of Russia. The report referred to states that over 2,000,000 acres of winter wheat have been destroyed in Podolia and Bessarabia, and the same conditions, only less widespread and disastrous, obtain throughout the majority of the southern governments.

The Buenos Ayres Standard adheres to its estimate of 18,000,000 bu wheat for export from Argentina, owing to the good prospects for the crop in the province of Buenos Ayres. Previous estimates have been about one-third this amount.

The official estimate of the Russian wheat crop received yesterday made the crop of 1896 equal to 16,240,000 bu, against 21,359,250 for 1895 and 20,500,648 bu for 1894.

The Liverpool Corn Trade News estimates the wheat crop of the world for 1896 at 2,376,000,000 bu against 2,472,000,000 bu in 1895 and 2,560,000,000 bu in 1894. It estimates the supplies on hand at the opening of the crop year in 1896 at 232,000,000 bu against 284,000,000 bu in 1895 and 319,000,000 in 1894.

From recent foreign advices the situation seems to be that English millers are buying from hand to mouth; the large stocks causing no uneasiness as to source of supply. Warehouses are well filled and storage room difficult to obtain.

The supply of breadstuffs in store and afloat for Europe on February 1, 1897, according to the Liverpool Corn Trade News, were equal to 77,500,000 bu, against 79,200,000 bu on January 1 and 73,800,000 bu on February 1, 1896. According to the returns to the Daily Trade Bulletin and the Minneapolis Market Record, the supplies of breadstuffs in the United States and Canada on February 1 were equal to 95,997,700 bu, against 105,418,300 bu on January 1 and 122,032,300 bu on February 1, 1896. The aggregate stocks in Europe and afloat in the United States and Canada on February 1, 1897, were equal to 173,498,000 bu, against 184,618,300 bu on January 1 and 202,832,000 bu on February 1, 1896. Supplies are 29,334,000 bu less than one year ago. Stocks were reduced 11,120,000 bu during January, against a reduction of 21,965,000 bu in January, 1896.

DAIRY PRODUCTS.

BUTTER.

There is a much better tone prevailing in the butter market, and values have been advanced on all grades of good table butter, both dairy and creamery. The improvement noted is not confined to this market, as New York and Chicago also report an advance on the finer grades. Quotations in this market range as follows: Fancy creamery, 21¢; good to choice, 19¢; fancy dairy, 15¢; fair to good, 12¢; low grade, 7¢. At Chicago the market is reported firm at current quotations. Fancy makes, being in limited supply, are especially strong. The demand from all sources

is quite satisfactory. Receipts are moderately liberal, with a fair portion of the arrivals showing the usual wintery defects. A further advance in prices is generally looked for as the result of present conditions. Quotations in that market on Thursday were as follows: Creameries—Extras, 20¢; firsts, 18¢; seconds, 14¢; Dairies—Fancy, 17¢; firsts, 14¢; seconds, 9¢; imitation creameries, firsts, 13¢; ordinary makes, 10¢; packing stock, fresh, 8¢; roll butter, choice 10¢; off stock 8¢. The New York market has ruled strong and active since our last report until the past day or two, when largely increased receipts gave a quiet tone to the market, and caused dealers to act with more caution. Still the advance gained on the fancy grades has been held, and the present range of values will probably be held. Quotations in that market on Thursday were as follows:

EASTERN STOCK.	
Eastern creamery, fancy.....	19 @20
Eastern creamery, choice.....	17 @18
State dairy, h. f. tubs, fancy, fresh.....	18 @19
State dairy, h. f. tubs, choice.....	15 @16
State dairy, h. f. tubs, fair to good.....	12 @14
WESTERN STOCK.	
Elgin creamery, fancy.....	21 1/2 @
Creamery, Western, fancy.....	21 1/2 @
Creamery, Western, choice.....	19 @20
Creamery, Western, fair to good.....	14 @18
Dairy, Western, choice.....	13 @14
" thirds to seconds.....	8 @11
Western imitation creamery, choice.....	15 @18
Western imitation creamery, fair to good.....	11 @14
Factory, fresh, choice.....	13 @14
Factory, fresh, fair to good.....	7 @12
Rolls, fresh, choice.....	13 @
" common to good.....	8 @11

As predicted last week, cheese has moved upward since our last report, and the best full creams are now selling in this market at 10¢@11¢, a gain of 1¢. The market at other points has also improved, and as the demand for export has also kept up well, we look for a strong market, with perhaps a further advance in values. Quotations in that market on Thursday were as follows: Full creams—Young Americas, 9¢@10¢; twins, 8¢@9¢; brick, full cream, 7¢@8¢; cheddars, 9¢@10¢; Swiss, fair to choice, 8¢@9¢; Limburger, good to choice, 7¢@8¢. The New York market has advanced a fraction during the week, and the outlook is promising for holders of fine goods. Exporters took 17,417 boxes last week. Of the market the N. Y. Tribune says: "Export demand was quite active early in the week, but very quiet the last few days. This is not due to any falling off in the demand, however, as exporters are still on the market looking for stock, but the remaining supplies of desirable large-size cheese are quite moderate, and holders of such so strong in their views that exporters have been unable to find very many within their limits. The home trade demand, however, has been quite active, orders coming in from all sections, and the market continues in a very strong position for all grades. While 12¢ has been as high as has been reached from exporters, still very few desirable lots, especially of white cheese, can be obtained now at that figure, and in a small way from store to home trade 12¢ occasionally reached." Quotations in that market on Thursday were as follows:

New State, full cream, large, white, fancy	
Do do late made, prime.....	11 1/2 @12
Do do good to choice.....	11 1/2 @11 1/2
Do do colored, fancy.....	11 1/2 @12
Do do late made, prime.....	11 1/2 @12
Do do do choice.....	11 1/2 @11 1/2
Do do do fair to good.....	9 @11
Do do small, fancy, white.....	12 @12 1/2
Do do colored, fancy.....	12 @12 1/2
Do do good to choice.....	11 1/2 @12
Do do common to fair.....	9 @11
Light skims, choice, small size.....	10 @10 1/2
Do do large.....	10 @10 1/2
Do do common to prime.....	5 @9 1/2
Full skims.....	3 @3 1/2

At Liverpool on Thursday quotations on finest American cheese were 59s. per cwt for choice American, both white and colored. This is an advance of 1s. per cwt from the price quoted a week ago and 6s. from the price of three weeks ago. Last summer quotations on American cheese fell to 34s. per cwt., and the advance from that point has been steady but quite slow up to the close of the year. Since then the lightness of stocks has caused a steady upward movement.

BALED HAY MARKET.

DETROIT.	
Timothy, No. 1.....	\$ 9 50 @10 00
do No. 2.....	8 50 9 00
Rye straw.....	6 50
Wheat straw.....	5 00
Oat straw.....	5 00

The following is a report of the sales of loose hay at the Western Hay Scales for the week ending noon, February 11, with the price per ton on each load:

Friday—18 loads: Five at \$9; four at \$8; five at \$7.50; one each at \$12, \$10, \$8.50 and \$5.
Saturday—Rain—no sales.
Monday—9 loads: Two at \$9; two at \$7.50; two at \$7; one each at \$10, \$8 and \$9.
Tuesday—35 loads: Two at \$9; five at \$8.50; seven at \$8; four at \$7.50; four at \$7; three at \$6.50; four at \$6; one each at \$10, \$9.50, \$9.25, \$7.75, \$5.50 and \$5.
Wednesday—29 loads: Two at \$12; three at \$9; five at \$8.50; seven at \$8; three at \$7.50; three at \$7; two at \$6.25; two at \$6; one each at \$6.75, and \$4.50.
Thursday—3 loads: Two at \$8.50 and one at \$7.50.

CHICAGO.

Market quiet, with choice timothy lower than a week ago, while other grades are unchanged. Quotations on Thursday were as follows:

Timothy, choice.....	\$ 8 50 @ 9 00
" No. 1.....	8 00 8 50
" No. 2.....	7 00 7 50
Mixed.....	5 00 6 00
Prairie hay.....	6 00 8 00

NEW YORK.

The market has ruled very dull since our last report. Had surplus kept up there would have been a drop in prices. But decreased receipts prevented the decline. All small sized bales are \$1 lower than quotations. Quotations in that market on Thursday were as follows:

Prime timothy, large bales.....	\$15 00 @15 50
No. 1 timothy.....	14 50 15 00
No. 2.....	13 00 13 50
No. 3.....	11 00 12 00
Clover.....	11 00 12 00
Clover, mixed.....	10 00 11 00
Straw—Long rye, best.....	17 00 17 50
Tangled rye.....	10 00 13 00
Short rye.....	10 00 12 00
Oat.....	7 50 8 00

PHILADELPHIA.

While offerings are not excessive, the demand is extremely limited for the season, and this makes a weak market. Quotations in that market on Thursday were as follows:

Timothy, choice, large bales.....	\$14 50 @15 00
" small bales.....	14 00
No. 1.....	13 00 13 50
No. 2.....	11 50 12 00

No. 1 clover, mixed.....	11 00 11 50
No. 2 clover, mixed.....	9 50 10 00
Straw—rye, No. 1, straight new.....	16 00 16 50
" No. 2, rye.....	15 50
Tangled rye.....	9 50 10 00

DETROIT PRODUCE MARKET.

DETROIT, Feb. 11, 1897.

FLOUR.—Quotations on jobbers' lots in barrels are as follows:

Straights.....	\$4 50 @
Clears.....	4 20
Patent Michigan.....	4 90 @ 5 00
Eye.....	3 00
Low grade.....	3 75

CORN.—No. 2, 23¢; No. 3, 22¢; No. 2 yellow, 23¢; No. 3 yellow, 23¢. The visible supply of corn on Saturday last was 23,332,000 bu., an increase of 1,294,000 bu. from the previous week.

OATS.—Quoted as follows: No. 2 white, 20¢; light mixed, 19¢; No. 3 white, 19¢. The visible supply of oats on Saturday last was 13,324,000 bu., an increase of 152,000 bu. since the previous Saturday.

RYE.—Quoted at 36¢c per bushel for No. 2. No. 3 sells at 34¢. The visible supply of rye on Saturday last was 3,864,000 bu., an increase of 39,000 bu. since the previous Saturday.

BARLEY.—Quoted at 65¢@70¢ per 100 lbs. The visible supply on Saturday last was 3,321,000 bu., a decrease of 137,000 bu. since the previous Saturday.

CLOVERSEED.—Prime spot, \$4.85 per bu.; No. 2 quoted at \$4.40. Alsike, \$4.25. At Toledo prime is quoted at \$5.20 for spot and March delivery at \$5.25.

TIMOTHY SEED.—Quoted at \$1.35 per bu.

FEED.—Bran, \$10; coarse middlings, \$10; fine middlings, \$12 00; corn and oat chop, 8¢; cracked corn, 8¢; coarse cornmeal, 8¢. These prices are for car load lots; small lots are \$1 per ton higher.

BUTTER.—Market firmer. Quoted at 15¢@16¢ for best dairy; common to fair 7¢@10¢; creamery, 19¢@20¢.

CHEESE.—New Michigan full cream, 10¢@11¢. BEANS.—Quoted at 70¢ per bu for hand picked in car lots; unpicked, 40¢@55¢ per bu. At New York quotations on Thursday were as follows: Marrow per bu, \$1.17¢@1.20; medium, \$1.02¢@1.05; pea, 95¢; white kidney, \$1.30¢@1.35; red kidney, choice, \$1.35; do yellow eye, \$1.10¢@1.12¢. Market dull and declining.

EGGS.—Market dull at 10¢@12¢ for storage. Strictly fresh selling at 13¢@14¢.

ONIONS.—Michigan, 50¢@75¢ per bu; home-grown Spanish, 75¢ per bu.

POTATOES.—Quoted at 20¢@25¢ per bu. At Chicago quotations on Thursday were as follows: Early Rose, 20¢@23¢; Hebrons, 22¢@23¢; Burbank, 22¢@25¢ per bu.

APPLES.—Quoted at 50¢@75¢ per bbl for common; good winter, \$1.21¢@1.25; no fancy on sale. Market quiet.

CRANBERRIES.—Quoted at \$1.25¢@2¢ per bbl.

DRIED APPLES.—Sun-dried, 1¢@2¢; evaporated, 3¢@4¢ per lb.

HONEY.—Quoted at 11¢@12¢ in sections for white, and 10¢@11¢ for dark comb; extracted, 5¢@6¢ per lb. At Chicago it is quoted as follows: White clover, 1¢ sections fancy, 12¢, broken combs, 7¢@9¢; amber to dark comb, 7¢; extracted, 5¢@7¢ per lb.

BEEFWAX.—Prime, 23¢@24¢ per lb.

HIDES.—Green, No. 1, 5¢; No. 2, 4¢; cured, No. 1, 6¢; No. 2, 5¢; calf No. 1, green, 8¢; cured, No. 1, 8¢; No. 2, green, 6¢; No. 2 cured calf, 6¢.

POULTRY.—Dressed chickens, 7¢@8¢; dressed turkeys, 11¢@13¢; dressed ducks, 11¢@13¢; geese, 8¢@9¢. Live quoted 10¢@12¢ below the above figure.

Quotations at Chicago are: Dressed—Turkeys, 11¢@12¢; old toms, 8¢@9¢; chickens, old and young hens, 10¢@12¢; roosters, old, 5¢; ducks, 9¢@11¢; geese, 6¢@8¢ per lb.

GAME.—Wild ducks—Redheads, 70¢@75¢; blue bills, 25¢@30¢; mallards, 65¢@70¢; canvasbacks, \$1.50; butter-balls, 20¢@25¢ per pair.

DRESSED VEAL.—Quoted at 6¢@7¢ for ordinary to good carcasses, and 7¢@8¢ for fancy.

DRESSED HOGS.—Quoted at \$3.50¢@3.75 per cwt with \$4.25 paid for fancy.

PROVISIONS.—Quotations are as follows:

Mess pork.....	\$ 8 00 @
Short mess.....	9 50
Short clear.....	8 50
Lard in tierces, #1 B, compound.....	4 1/2
Pure lard, #1 B.....	5 @
Hams, #1 B.....	9 @10
Shoulders, #1 B.....	5
Choice bacon, #1 B.....	7
Extra mess beef, new #1 B.....	6 50
Plate beef.....	7 00
Tallow, #1 B.....	3 1/2

OILS.—Raw linseed, 30¢; boiled linseed, 32¢ per gal. less 1¢ for cash in 10 days; extra lard oil, 42¢; No. 1 lard oil, 35¢; water white kerosene 34¢; fancy grade kerosene, 9¢@10¢; deodorized gasoline, 9¢ per gal.; turpentine, 35¢ per gal. in barrel lots, less 1¢ for cash in 10 days. Less quantities, 40¢ per gal.

HARDWARE.—Axes, single bit, broze, \$5.50; double bit, broze, \$10; single bit, solid steel, \$6.50; double bit, solid steel, \$10.50 per doz; bar iron, \$1.50 rates; carriage bolts, 75 and 10 cent off list; tire bolts, 70 per cent off list; painted barbed wire, \$1.65; galvanized barbed wire, \$1.95 per cwt; single and double strength glass, 70 and 5 per cent off list; No. 24 sheet iron, \$2.50 rates per cwt; galvanized, 75 and 10 per cent off list; No. 1 annealed wire, \$1.00 rates. Wire nails, \$1.55; steel cut nails, \$1.55 per cwt. new card.

COFFEE.—City prices are: Rio, roasting, 15¢; fair, 16¢; good, 18¢@19¢; prime, 20¢; choice, 22¢@23¢; fancy, 24¢; Maracaibo, roasted, 25¢; Santos, roasted, 24¢; Mocha roasted, 25¢; Java, 32¢.

DETROIT LIVE STOCK MARKET.

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Horticultural.

THE OAKLAND COUNTY FRUIT-GROWERS' ASSOCIATION.

The winter meeting of the Oakland County Fruit-Growers' Association was held at the court house, Pontiac, on the afternoon of Saturday, January 30. A short but interesting program, consisting of papers and discussions, was carried out, after which the annual election was held and other business of importance transacted.

First on the program was a paper by J. J. Snook of Rochester, entitled "Fruit growing; a bird's-eye view." The first question, the writer stated, was the location for a fruit farm, the kind of soil best adapted for fruits in general, or upon which any particular variety would thrive best and longest. Success or failure might depend upon the decision of this question. Some localities are less liable to frost than others, and two or three crops saved from frost would make a vast difference in the results. The subject of cold air drainage should not be overlooked. The nature of the soil will make a difference in the size and quality of fruit, as well as in the length of time a plant will thrive. An apple, for example, that is grown on clay will be larger, better in flavor and keep longer than one grown on a gravelly or sandy soil. Some of the catalogues sent out by nursery companies claim that all soils are adapted to fruit-growing, but experience easily proves that this is not the case. Cultivated plants as well as forest trees are fitted by nature for certain kinds of soils. Another matter, which must not be neglected, is the selection of hardy, productive varieties, not subject to rust or blight and adapted to the market. A large amount of stock sent out by nurseries should be avoided as worthless. The soil should, of course, be thoroughly prepared and cultivated, the fruit gathered at the proper time, and properly marketed. But all this is of secondary importance to the grower himself, who should have a taste for the work, with capacity for unceasing labor and attention to detail.

The discussion was opened by George Flummerfelt, of Rochester, who considered a clay loam with a north slope as the most desirable for a peach orchard. Atmospheric drainage would have more effect upon clay than upon sand, as the latter changes temperature too rapidly, and also becomes colder in winter. A mucky soil should not be used for peaches, but pears do best on a heavy, black clay.

Mr. Snook on being called upon to explain atmospheric drainage said it was caused by the cold air settling in the valleys, which drew it down from the hills, leaving them in the warmer atmosphere which arose to take its place. In this way the air would be put in motion along the hillsides, while remaining stagnant in the valleys.

Mr. Flummerfelt considered altitude of no advantage if the land were flat. It should be uneven to obtain benefit from atmospheric drainage.

J. H. Perry had found that the effects of atmospheric drainage could be plainly traced along the sides of a ravine after a spring frost. As to the effect of soil upon peaches his experience showed that those grown on gravel were fewer in number, but larger, more highly colored, and smoother than those from clay. The trees were also larger but less hardy.

The second paper, entitled Co-operation, was read by C. W. Bartlett of Pontiac, who began by insisting that farmers must unite in order to successfully cope with the trusts and combines which were being formed or already in existence. Many, he had found, would not join a co-operative organization because they could obtain part of the benefits by staying out, and were not obliged to share the expense and the responsibility. The work of the Grange, for example, in breaking up swindling practices had been a benefit to all the farmers of the State. But the outsider could not enjoy all the advantages, as there were large amounts annually saved in purchasing supplies which were shared only by members. Commission men were less likely to impose upon those belonging to an association than upon those who were alone. As an instance of what co-operation could accomplish the Grand Rapids fruit-growers were mentioned. Finding the returns from shipments unsatisfactory they had joined together and refused to sell fruit unless the commission merchants came to Grand Rapids and purchased from there. As a result that city is now the best peach market in the world. It was necessary, he concluded, to meet combine with combine, or be forced to the wall and obliged to remain there. There was room for a Grange and a Farmers' Club in every township, and certainly in Oakland county with its large fruit interests there should be room for a strong association devoted to that industry.

Following this was a short paper upon co-operation among fruit-growers by F. D. Wells, of Rochester, who held that in commercial co-operation there should be a large demand for the articles purchased in order to be handled to advantage. Communities in which special lines of agriculture are followed would have a great advantage over those pursuing general farming. This was especially the case with fruit-growers, who use large numbers of packages annually, which can be purchased at wholesale rates by associations at a considerable saving. A uniform system of grading and of packages could be adopted by an organization, which would

be of advantage in marketing fruit. Transportation companies would do better by an organization than by an individual, and commission men found it to their interest to handle the fruit at a lower rate. Co-operation was important for determining the varieties best fitted to the soils, market and other conditions, also for fighting destructive insects and diseases.

In the discussion which followed William Bartlett spoke of the importance of an organization in obtaining more honest treatment from commission men. As it is now, an individual has to trust to their honesty and has small means of redress if the business is not satisfactory.

Ezra Jewell, a market gardener, considered that the worst competitor he had was the farmer who raised a few bushels of truck which he brought to town and sold for any price he could get. The dealer would offer a low figure, knowing that the producer would sell for anything in preference to taking the produce home; the price once set, the local producer could get no more.

Peter Voorheis believed that farmers would get better prices if they were more particular in grading. He had found it difficult to get them to grade produce properly.

The general program being completed the business meeting was opened by the president, A. G. Griggs, who stated briefly what had been accomplished with the transportation companies, from which it appeared that considerable had been effected in the way of getting better service, with good prospects for further improvement another season. Some concessions had also been made in rates, which had enabled the peach growers to ship to eastern markets at much less than the regular charges. The adoption of a uniform package was one of the reforms recommended for the coming year.

The first annual report of the secretary followed, from which it was learned that the society was in a very prosperous condition. It was organized in January, 1896, at Rochester. Only a dozen persons were present at the first meeting, but the membership has now increased to nearly forty. It was started too late in the season to be of much assistance to the berry growers, in the way of procuring packages, but the peach and plum baskets were obtained at from twenty-five to thirty per cent below the regular cost. The annual fee was fifty cents per member, which had been sufficient to pay all expenses and leave a surplus in the treasury.

The election then took place, at which the former officers were chosen for another year, and are as follows: President, A. G. Griggs, Rochester; Vice-President, George Flummerfelt, Rochester; Secretary and Treasurer, J. H. Perry, Goodison.

A motion to adopt the short or wine quart as the standard of the Association brought out a lively discussion upon the merits of the two measures. For the local trade the dry quart is demanded, but it was urged by those who supported the motion that as the wine quart is used in Detroit and other large markets those who are shipping there find it necessary to use it in order to meet the competition. The advocates of the large quart believed that if it were adopted by the Association and given a distinctive mark it would sell so much more readily as to soon compel other producers to adopt the same measure. All agreed that the larger quart was preferable for handling fruit, but were divided as to the advisability of using it under the present circumstances. The question was tabled for further investigation.

An amendment to the constitution providing for the establishment of branch organizations throughout the county was adopted, after which the Association adjourned.

F. D. W.

For the Michigan Farmer.

A CHEAP SUBSTITUTE FOR PARIS GREEN AS AN INSECTICIDE IN SPRAYING MIXTURES.

BY R. C. KEDZIE.

A large demand for poisons to kill potato bugs, army worms, etc., and the use of arsenical preparations for spraying mixtures, and the high price of Paris green at times when it is most in demand, lead farmers and fruit-growers to ask whether some cheaper and equally effective material can be found as a substitute. The following is a specimen of inquiries that come to the chemical department on this subject, and to answer many inquiries I reply to this through the FARMER.

Dryden, Mich., Jan. 25th, 1897.

Dr. R. C. Kedzie, Lansing.
DEAR SIR:—We had a great deal of trouble last season fighting potato bugs with poor Paris green. I see on page 46 of Bulletin 124, April, 1895, L. R. Taft speaks of using white arsenic in the orchard. Can we use it on potatoes if carefully dissolved and properly diluted? We have a machine with three good spray nozzles that will put on any desired quantity perfectly. I inclose stamp for reply, but if you prefer answering through the MICHIGAN FARMER, others may be pleased to hear from you.

Yours Truly,

E. S. MILLER.

I immediately wrote for a sample of the Paris green for analysis, but none could be had of that particular kind.

ACTION OF ARSENIC IN SOLUTION ON PLANTS.

Arsenic in solution poisons plants, and even in dilute form is liable to burn the leaves and tender parts of plants. This is an objection to the use of white arsenic dissolved in water as a spray for plants. This is not because of any acid property of the arsenic, for it is equally injurious when its acid property is neutralized by soda, forming the very soluble arsenite of soda. I have heard of a farmer who ruined his apple orchard by spraying with this arsen-

ite of soda. Arsenic and soluble arsenites should not be used for spraying.

Insoluble arsenites, like the arsenites of copper, or arsenite of lime, are not injurious to plants when used for spraying in the quantity required to kill potato bugs, caterpillars, etc., but these insoluble compounds are equally effective as insecticides when eaten by these pests. They kill bugs and worms that eat them just as surely as the soluble compounds of arsenic would, if eaten.

THE CHEAPEST SAFE ARSENITE.

The arsenite of copper (Scheele's Green) and the aceto-arsenite of copper (Paris green) have a certain amount of poisonous property in consequence of their content of copper; but the poisonous material we depend on—the dead shot for bugs—is the arsenic they contain. The cheapest arsenite is arsenite of lime, which is also a safe material for spraying because it is so insoluble.

Arsenious trioxide, "White arsenic" of the shops, or "Arsenic" in common parlance, is very cheap. It can be sold for ten cents a pound and leave a fair profit to the dealer. A pound of arsenic is equal to two pounds of Paris green as an insecticide. Lime is worth about twenty-five cents a bushel, or about half a cent a pound. The materials for making a spray for insects are very cheap.

HOW TO MAKE ARSENITE OF LIME.

Some recommend boiling a pound of arsenic and two pounds of fresh slaked lime in two gallons of water for twenty minutes, then dilute with 400 gallons of water. There are two objections to this method: 1st. The arsenic dissolves slowly, and it is difficult to tell when it has all dissolved and combined with the lime; 2d. If prepared in large quantity for use for the season, the arsenite of lime will settle into a solid mass after keeping, and will not readily mix with the quantity of water required for spraying.

A BETTER WAY.

Dissolve the arsenic by boiling with carbonate of soda, and thus insure complete solution; which solution can be kept ready to make a spraying solution when wanted. To make material for 800 gallons of spraying mixture, boil two pounds of white arsenic with eight pounds of salsoda (crystals of carbonate of soda—"washing soda"—found in every grocery and drug shop) in two gallons of water. Boil these materials in any iron pot not used for other purposes. Boil for fifteen minutes, or till the arsenic dissolves, leaving only a small muddy sediment. Put this solution into a two-gallon jug and label "Poison—stock material for spraying mixture."

The spraying mixture can be prepared whenever required, and in the quantity needed at the time, by slaking two pounds of lime, adding this to forty gallons of water; pour into this a pint of the stock arsenic solution. Mix by stirring thoroughly, and the spraying mixture is ready for use. The arsenic in this mixture is equivalent to four ounces of Paris green.

CASH FOR 800 GALLONS OF SPRAYING MIXTURE.

	Cents.
3 pounds white arsenic.....	25
4 pounds salsoda.....	20
40 pounds lime.....	20
	\$.65

Cost per barrel, 3 1/4 cents.

ADVANTAGES OF THIS METHOD.

1st. It is very cheap, and the materials can be found in any village in the State.
2d. The stock material (arsenite of soda) is easily prepared, and can be kept in that form for any length of time, ready for making a spraying solution with lime water.

3d. The arsenite of lime, in the quantity required for spraying, will not burn the leaves or injure the trees or plants.

4th. It will be uniform in quality and not vary in strength as Paris green often does.
5th. It makes a milky-colored spray and the color on the leaves will show how evenly it is distributed.

Everyone using such deadly poison should bear in mind the possible dangers from its use. The pot, the jug, and other apparatus for making and storing the stock mixture of arsenite of soda, should be used for no other purpose of any kind.

AGRICULTURAL COLLEGE, Feb. 3, 1897.

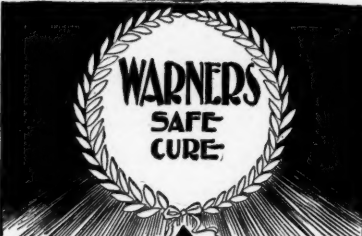
RECEIVED.

The seed and nursery catalogues for 1897 are coming to hand in goodly numbers, and are unusually handsome in their make-up and illustrations. We mention below those received up to date:

R. H. Shumway, Rockford, Ill., has a large catalogue, well filled, and as gorgeous as a western sunset. The cover pages are works of art.


Burpee's Farm Annual for 1897 is better and brighter than ever before. The illustrations are all true to nature, having been engraved generally direct from photographs. It is entirely free from exaggeration, and, as the publishers state, "tells the plain truth about seeds." Handsomely bound, the cover, lithographed in eight colors, shows on the front a bouquet of the beautiful new large-flowered violet, reproduced exactly from the original painting by a famous French artist. A distinct new celery, Fordhook pickling cucumber, and a new, extra early, long-keeping onion from Australia, are all shown painted from nature. With each copy is mailed a lithographed leaflet showing six superb new varieties of sweet peas.

James J. H. Gregory & Sons, of Marblehead, Mass., need no introduction to vegetable growers in any state. Their useful and complete catalogue will find its



A RAY OF HOPE

reaches out to suffering humanity in the form of a safe, sure and effective remedy for the ills to which flesh is heir. That is why restored millions pay willing homage to



All experiment was passed long ago. It is known to be a positive cure for

BRIGHTS DISEASE, URINARY DISEASES, FEMALE COMPLAINTS, GENERAL DEBILITY, AND MALARIA,

and all diseases arising from disordered Kidneys and Liver. Easy to take, leaves no unpleasant taste, produces no ill effects.
Large sized bottles or new style smaller one at your nearest store.

GREGORY'S HOME GROWN SEEDS

are known the country over to be exceptionally reliable. They have a reputation of forty years back of them. They are sold under three warrants. It would not be wise to plant without consulting Gregory's Vegetable and Flower Seed Catalogue for it describes with engravings several new vegetables of great merit to be found in no other. Catalogue sent free to anyone anywhere.

J. J. H. GREGORY & SON, MARBLEHEAD, MASS.



BEST IN THE WORLD FREE SEEDS CHEAP.

Only 10 to 40 per pkg. Cheap by oz. & lb. Send Yours, and Neighbors address for Grand Catalogue. R. H. Shumway, Rockford, Ill.

EVERGREENS

Ornamental, Fruit Trees, Vines, etc., 100 Evergreens 2 to 5 ft., \$10.00. 50 similar bargains, 100 seedlings, \$1.00, delivered free, hardy varieties all sizes, nursery grown. Cash commissions for clubs. Illustrated catalogue free. Good local Salesmen Wanted. D. HILL, EVERGREEN SPECIALIST, DUNDEE, ILL.

PEACH TREES.

Fine, healthy stock, by 100 or car load lots, for spring '97. Grown on new land; the best I ever raised. Low prices Address JOSIAH A. ROBERTS, MALVERN, PA.

CHOICE STRAWBERRIES

FOR THE GARDEN AND FIELD BARGAINS IN PLANTS FOR 1897. CATALOGUE FREE. C. N. FLANSBURGH, LESLIE, Michigan.

BERRY PLANTS

of all kinds at right prices. Catalogue G. with remarks on Berry Growing free. R. J. STAEHLIN, Bridgman, Mich.

Beautiful Evergreens.

Hardy and in great assortment. Splendid general nursery stock, including Shade & Ornamental Trees, Hedge Plants, Shrubs, Vines, Roses, Fruit Trees, Small Fruits, Etc. If you're wise you'll get our price before ordering elsewhere. Catalogue free. EVERGREEN NURSERY Co., Evergreen, Wis. (Successors to George Pinney.)

CHESTNUT, 12 CURRANT, 12 GOOSE-BERRY, 12 GRAPEVINE \$3. prepaid.

T. G. ASHMEAD NURSERY, Williamson, N. Y.

BERRY PLANTS

by the million. Immense stock. Low prices. Best plants. "How to Succeed with Berries." and Catalogue FREE. Write now. L. A. WOOLL, Elsie, Mich.

1,000 Peach Trees

One year from bud, 2 to 3 ft., mostly branched, with freight prepaid to any station east of Miss. River for \$20. or 500 for \$11.50. Sample prepaid, 25c. Other sized trees proportional prices. R. S. JOHNSTON, Box 6, Stockley, Del.

When writing to advertisers please mention that you saw their advertisement in the MICHIGAN FARMER.

way to the homes of many thousands this season, and it will be found as valuable and reliable as ever. It has all the new things in vegetables, and has a very complete catalogue of flower seeds.

A handsome catalogue is that of Storrs, Harrison & Co., of Painesville, Ohio, which includes garden, field and flower seeds, as well as nursery stock of all descriptions, embracing ornamental plants and shrubs, small fruits, etc., etc. On the first cover page is an illustration of Japanese morning glories, colored true to life and very beautiful, while on the other cover are two new cannas, the Flamingo, a deep red, and the Austria, a yellow with shadings of red.

Cole's Garder Annual for 1897 is a complete catalogue of garden, field and flower seeds, nicely printed, with handsome illustrated cover pages. Discounts are made on club orders for seeds.

R. J. Stahelin, the nurseryman of Bridgman, Mich., has just issued a handsome catalogue which contains a treatise on berry growing, and illustrations of various kinds of berries, with their history and manner of cultivation. It is a helpful book, for a little berry patch well tilled means a pocket-book well filled. It will be sent free, also a beautiful calendar.

The Eagle Seed and Nursery Co., of Binghamton, N. J., send out out a catalogue of seeds, vines and trees, and say: "We guarantee that all seeds, vines, trees or shrubs shall reach our customers in good condition."

L. L. Olds, Clinton, Wis., grower and dealer in seed potatoes, seed grains and garden and flower seeds. Quite a number of new and promising varieties of potatoes are catalogued, described and illustrated. Potato growers will be interested in this catalogue.

R. M. Kellogg, formerly of Ionia, but now of Three Rivers, this State, has issued his annual catalogue, and, as usual, it is very interesting and instructive. He tells how he grows great crops of small fruits, and gives full instructions for breeding pedigree plants. To the small fruit-grower this catalogue will prove of great value.

Vick's Floral Guide for 1897 is as handsome and fresh as ever, and will be welcomed by lovers of flowers wherever they may be. In addition to the flower catalogue is a list of vegetable and field seeds, farm, garden and florists' requisites in the shape of tools, apparatus, etc., which have become necessary to the successful horticulturist and florist.

C. E. Whitten, of Bridgman, Mich., sends a catalogue of small fruit plants, with description of varieties, and soils and locations best adapted for their successful cultivation.

From away off in Northern Minnesota comes Allen's Red River Valley Seed Potato catalogue, entirely devoted to that esculent. All the varieties are illustrated and described, and the catalogue is very complete. It is issued by E. W. Allen, Wolverton, Minnesota.

I. A. Woolf, of Elsie, this State, sends a catalogue and price list of small fruits, with the title, "How to succeed with berries." All the plants offered are grown by himself, and he has a reputation for sending out good plants.

Frank Ford & Sons, Ravenna, Ohio, send out a very complete catalogue of seeds plants, trees, potatoes, etc., which is closely filled with descriptions of varieties, suggestions to growers, etc. It is the seventeenth annual catalogue sent out by this firm.

C. N. Flansburgh, Leslie, Mich., confines his catalogue nearly entirely to strawberry plants, and the testimonials he publishes from customers in this and other states, show that his plants have done extremely well wherever sent.

E. W. Reid, of Bridgeport, Ohio, has sent out a handsome catalogue of his nurseries this season, with the legend "Everything for the Fruit Grower" on the illuminated cover. Certainly the fruit-grower can find everything he wants within its pages, which is filled with illustrated descriptions of the different varieties.

Harry E. Hammond, of Decatur, Mich., sends a catalogue of his new muck land seed potatoes and farm seeds, which he claims produce better crops than will seeds grown on high land. He describes and illustrates the Early Michigan potato, which he announces is the largest yielding and finest quality early potato ever introduced.

Peter Henderson & Co., 35 and 37 Cortlandt St., New York, send their large and handsome "Manual of Everything for the Garden." It is the jubilee edition, the firm having been established fifty years ago. It contains 170 pages of interesting matter, profusely illustrated, and the illuminated pages, showing various vegetables and flowers in their natural size and colors, are works of art. The new gold medal rose Jubilee, a deep red, is an ideal flower and was awarded a gold medal by the Massachusetts Horticultural Society. Another page is given up to pansies, one to the Sir Walter Raleigh potato, and one to the new self-blanching celery Golden Rose. This catalogue is sent out at a charge of 20 cents, which is deducted from the first order of \$1 or over.

For the Michigan Farmer.

ASPARAGUS.

If one wishes to grow asparagus for home use or market, it is quite necessary that he has suitable soil. It should be a rich, sandy loam with not a very stiff clay subsoil; even sandy land, if made rich, will grow better plants than a stiff clay. The old idea that the trenching system is the only way to grow it, is erroneous; just plow and fit the land as deep as possible

being sure to incorporate as much rotted manure into the soil as can possibly be done, for this plant is a gross feeder, and the plant growth is in proportion to the quantity of manure used.

I think the best way to secure plants is to order two-year-old ones from some reliable nurseryman, for when they are grown from seed it is a difficult matter to prevent the weeds from choking them while young, as the seeds are much slower of germination than weed seed, but if a large plantation is to be set it may be more economical to raise one's own plants.

After the plants are secured by whichever way deemed prudent they should be exposed as little as possible to the wind or sun while setting, as a very few moments' exposure is death to them.

The rows should not be less than four feet apart and the plants three to five inches deep, and 18 to 20 inches apart in the rows.

Clean cultivation the first season is all that is necessary. A thick mulch of rich manure spread on at the beginning of winter will prevent the ground from freezing so hard but that the young plants will start earlier than when left exposed.

Whether salt is a necessity or not, has not yet been proven, but at least it has its advantage, for it seems to be death to weeds and to have a great affinity for moisture which will assist plant growth during a drouth.

A full crop can be harvested the second year if two-year-old plants are used, but not till the fourth year if grown from the seed.

In cutting it, it should be cut just below the surface so that no sharp stubs are left to interfere with the work.

The stalks should be cut before they begin to branch, for they soon begin to grow woody after that time.

The bunches should be five to six inches long and four to five inches in diameter, the tops made even, and, after tying, the bottoms squared off so that the stalks will all be of uniform length.

In good growing weather the stalks should be cut every other day, that they may be crisp and tender.

For home use, 100 plants will furnish all an average family can use all summer, but it is best not to cut too late in the season, that the plants be not weakened.

In the fall, before the seed balls are ripe enough to fall, the tops should all be cut away and burned, that no seed falls to grow into a "weed," for is not a plant out of place called a weed? B. A. WOOD.

THE RURAL NEW-YORKER

THE RURAL NEW-YORKER is a National Weekly for the farmer, gardener and fruit grower. It is 47 years old, and has long been recognized as the leading American authority on all the more important questions appertaining to the cultivation of economic and ornamental plants, fertilizing problems, farm methods, etc. The best writers in the country. It aims to instruct every member of the household 1,000 pages, 500 illustrations—ONE dollar a year. Trial subscription of five weeks for 10 cents. Specimen copies free.

THE RURAL NEW-YORKER, NEW YORK CITY

BUY NORTHERN GROWN SEEDS

FARM SEEDS

Salzer's Seeds grow and produce! John Breider, Mischicot, Wis., astonished the world growing 173 bu. of Salzer's Silver King Barley per acre. Don't you believe 187 just write him. In order to gain, in 1897, 100,000 new customers, we send on trial 10 DOLLARS' WORTH FOR 10c. 12 pkgs. of new and rare farm seeds, including above Barley, Teosinte, Giant Spurry, Sand Vetch, "40c. Wheat," etc., positive worth \$10, to get a start, including our great seed catalog, all postpaid, for 10 cents. Catalog alone, 5c. postage.

Largest growers of farm seeds and potatoes (\$1.50 a bu.) in the world.

35 pkgs. earliest vegetable seeds, \$1.00

JOHN A. SALZER SEED CO. LACROSSE, WIS.

FERRY'S

There has never been a time when growers should guard against failure with more care. There has never been a time when Ferry's Seeds were more essential. They are always the best. For sale by leading dealers everywhere. Insist on having them.

FERRY'S SEED ANNUAL

is full of information for gardeners and planters. There will never be a better time than now to send for the 1897 edition. Free. D. M. Ferry & Co., Detroit, Mich.

SEEDS

SPRAY with **EMPIRE** the **KING**

PERFECT AMBITORS. No scorching foliage. No leather or rubber valves. Twelve styles of Spray Pumps. Catalogue Free. FIELD FORCE PUMP CO., 56 Market St., Lockport, N.Y.

1897-1847

This Year is the Golden Jubilee Anniversary of Peter Henderson & Co.

To commemorate our fiftieth business year, we have prepared the most beautiful and valuable SEED and PLANT CATALOGUE the gardening world has ever seen. Every copy costs us 25 cts. to produce, but in honor of this our "JUBILEE" year, we will send it this season FREE to any one on receipt of 10c. (in stamps) to cover postage and mailing. This "JUBILEE" CATALOGUE OF "EVERYTHING FOR THE GARDEN" is a magnificent book of 170 pages, on which are displayed over 500 beautiful illustrations of Seeds and Plants, the work of our own artists. Also six full-size colored plates which in artistic beauty have probably never been equaled, certainly never surpassed.

A "JUBILEE SURPRISE SOUVENIR" will also be sent without charge to all applicants for the Catalogue who will state where they saw this advertisement.

PETER HENDERSON & CO.,
35 & 37 CORTLANDT ST., NEW YORK.

74 73 72 71 70

PRICES TALK.

Apple, 4c.; Std. Pear, 5c. up; Peach, 2 1/2c. up; Plum, Cherry, etc., at equally low rates. Strawberry Plants, \$1.25 per M. up. Everything for the Fruit Grower Healthy, true to name. The Best all Brass Spray Pump in the world, \$2.75. FARMER readers should write to-day.

NEIL, THE NURSERYMAN, Laporte, Ind.

1849 - VICK'S FLORAL GUIDE - 1897

Standard Seed and Plant Catalogue. Contains all that's New and Good. Always Reliable.

THE GUIDE } One packet either Wonderful Branching Aster, New
and your Choice } Japan Morning Glory, or Pansy Choice mixed, for **15 CTS.**
Two packets 25c., three packets 30c. Full retail price 45 cts.

Vick's Illustrated Monthly Magazine which tells how to grow Plants, Flowers and Vegetables, and is up to date on these subjects, for 3 months, the Guide and One packet of Seeds (named above) for 25 cents.

Every tenth person sending an Order as above will receive a coupon good for 50 cents' worth of Seed free

When ordering state where you saw this adv. and we will send a packet of Flower Seeds free

JAMES VICK'S SONS, ROCHESTER, N. Y.

VICK'S ILLUSTRATED MONTHLY MAGAZINE

Fruit Growers' Needs

is our special study—supplying them, our sole business. Have you need of small fruits, fruit or ornamental trees, vines, roses? Our stock is the largest and fullest in the United States; our prices the lowest. All of the best old varieties, the choicest of the new kinds—many sorts exclusively ours. Great reduction on large lots—estimates furnished upon application.

Send for complete illustrated catalogue and learn how you may save 50 per cent.

Fruit crates and baskets. **REID'S NURSERIES, BRIDGEPORT, OHIO.**

LORENZ PEACH **ELDORADO BLACKBERRY**

BURPEE SEEDS

BURPEE'S FARM ANNUAL
Leading American Seed Catalog, mailed FREE to any address. **W. ATLEE BURPEE & CO., Philadelphia.**

Here is the List of Competitors.

- April 2d, 1896, the government contest of Spraying Pumps took place at Grimsby, Ont., with expert judges, and the following is their report in the order of their standing:
- 1st—"ECLIPSE," Benton Harbor, Mich.
 - 2d—"Spramotor," London.
 - 3d—"Anderson," Aylmer, Ont.
 - 4th—"Pomona," Seneca Falls, N. Y.
 - 5th—"Clarksburg," Clarksburg, Ont.
 - 6th—"Ideal," Brantford, Ont.
 - 7th—"Empire King," Lockport, N. Y.
 - 8th—"Gem," Toronto, Can.
 - 9th—"Reid," Hamilton, Ont.
 - 10th—"Defender," Catskill, N. Y.
 - 11th—"Wilson," London, Ont.

Consult your own interest and send for our catalogue.

MORRILL & MORLEY, Benton Harbor, Mich.

GREAT CROPS OF SMALL FRUITS

AND HOW TO GROW THEM.

It will be sent free to all readers of the MICHIGAN FARMER. It has been revised and contains more practical information than any other book ever published on the subject.

Address **R. M. KELLOGG, Three Rivers, Mich.**

FRUIT TREES.

NOTICE TO PLANTERS.

We have a large stock of our own growth, of Apples, Pears, Plums, Cherries, Peaches, small fruits, etc., etc. By ordering direct from us you will save 50 per cent. All trees guaranteed true to name. 40 years in the business. Write us and save money by doing so.

L. G. BRAGG & CO., Kalamazoo, Mich.

A Novelty Offer in Vegetables.

New Cardinal Beet.—Most desirable in shape and color; very early; cooks dark red.

Evergreen Cucumber.—Color, deep green; desirable for slicing or pickling.

Grand Rapids Lettuce.—Of superior quality and color, always crisp and tender.

Southport Yellow Globe Onion.—Handsome in appearance and large in size.

Early White Box Radish.—One of the very best white turnip Radishes.

Ignatius Tomato.—Very productive; good size; rich color; smooth and solid.

One large packet of each of the above (six varieties in all) only 15 cents, postpaid, and is an offer no reader of this paper having a garden should fail to accept.

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Grange Department.

OUR MOTTO:—"The farmer is of more consequence than the farm, and should be first improved."

Address all correspondence for this department to
KENYON L. BUTTERFIELD,
AGRICULTURAL COLLEGE, - - MICH.

News from Michigan Granges is especially solicited.

OFFICERS MICHIGAN STATE GRANGE.

Master—George B. Horton, Fruit Ridge.
Overseer—E. B. Ward, Charlevoix.
Lecturer—Jason Woodman, Paw Paw.
Steward—Geo. L. Carlisle, Kalkaska.
Assistant Steward—Wm. Robertson, Hesperia.
Chaplain—Mrs. Mary A. Mayo, Battle Creek.
Treasurer—E. A. Strong, Vicksburg.
Secretary—Miss Jennie Buell, Ann Arbor.
Gatekeeper—M. H. Foster, Kent.
Pomona—Mrs. Estella E. Buell, Union City.
Flora—Miss Elizabeth Norris, Lansing.
Ceres—Mrs. Estella Knight, Swartz Creek.
Lady Assistant Steward—Mrs. Mary Robertson, Hesperia.

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Lecturer—Alpha Messer, Vermont.
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Leonard Rhone, Centre Hall, Pa., Chairman.
J. J. Woodman, Paw Paw, Michigan, Secretary.
N. J. Bacheider, East Andover, N. H.
J. H. Brigham, Ohio, Ex-Officio.

THE EDITOR'S TABLE.

Taxation. The report of the State Grange Committee on Taxation, which we mentioned last week, was unavoidably omitted, and appears in this issue. Let every farmer read every word of it.

The Worthy State Secretary sends us a report of the proceedings of our Executive Committee, which convened in Lansing, Feb. 4 and 5. We deem their action wise, and hope all Patrons will co-operate with them in getting these various matters before the legislature.

As our readers already know, Bro. Brigham was not appointed Secretary of Agriculture. We are sorry. We do not know Mr. Wilson of Iowa, the gentleman who gets the appointment, and we shall have to trust to time to show that the honor has been worthily conferred. We know Bro. Brigham would have made a strong secretary. We can only hope that Mr. Wilson may prove a strong secretary.

MEETING OF EXECUTIVE COMMITTEE.

The executive committee of the State Grange held a two-day session, Feb. 4 and 5, in Lansing. The purpose of the meeting was to formulate plans for a Patrons Mutual Fire Insurance company, in accord with their instructions at the last session of the State Grange.

Brother Jared Hewes, of Chautauqua county, New York, was present and furnished many valuable suggestions from his long and familiar acquaintance with the work of a successful Patrons' insurance company in his own State. The articles of association and by-laws as drawn up by the committee will be submitted to the attorney general and insurance commissioner before they are accepted.

The co-operative work of the Grange, so well started, was left in Worthy Master Horton's hands with instructions to enlarge its scope as he deemed best.

Matters of legislation were discussed, and action, defining the attitude of the State Grange, taken upon several measures which are either before the legislature or likely to come up.

Relative to the traveling libraries, which have found so much favor with Granges, the committee adopted the following:

"Whereas, the traveling library system, which has been on trial for the past two years, meets a desire for educational advantages from which many members of rural communities are debarred, and,

Whereas, the call for these libraries has been far beyond the means of supply during the past, with promise already of great increase this year and in the future,

Therefore, we, the members of the executive committee of Michigan State Grange, believing this to be an exceedingly economical and praiseworthy method of affording educational privileges to those who cannot obtain them elsewhere, would most respectfully request the finance committee of the Michigan Senate to reconsider its action in reducing the appropriation of \$5,000 asked for, to \$3,500, for the support of the Michigan traveling libraries."

The subject of Farmers' Institutes received careful attention, resulting in the adoption of the following:

Resolved, That the executive committee of Michigan State Grange is in favor of the State Board of Agriculture asking for an appropriation of \$5,000 per year for Farmers' Institutes.

In line with its past efforts for pure food legislation, the committee voted to favor the passage of the anti-color bill, known as Senate bill No. 6 and House bill, No. 58.

After thorough discussion the committee declared itself by vote as opposed to the repeal of the law providing for the collection of farm statistics.

The members expressed themselves in favor of a law to prevent appeals to the circuit court from justice courts, where the amount involved is less than \$50.

Also, that they favor such change in the tax laws as shall require all taxpayers to make oath to their tax statements, also that the supervisors and board of review shall certify to tax rolls under oath.

The committee approved the measure known as the Kimmis bill which provides that county officers shall be paid a salary instead of fees.

The committee reaffirmed the decision of the State Grange in favor of the continuance of the office of tax statistician; against the establishment of more State institutions and in opposition to an increased appropriation for the State university, believing that institution should be able to support itself on the one-sixth mill tax and its other resources.

JENNIE BUELL, Secretary.

GRANGE NEWS.

[Grange news must be in the editor's hands by Monday noon.]

At the last meeting of Banner Grange No. 640, Ionia county, the following resolution was discussed and adopted:

Resolved, By Banner Grange No. 640, that the laws governing cities should be so amended as to deprive all cities of the use of the county jail as a city lock-up.—F. I. FLANAGAN, Sec.

MADISON GRANGE is preparing for a semi-annual spelling contest, at which a trophy, like the America's cup for the sailing yachts, will be captured and held by some school until lost at a future contest. The school's trophy will consist of three or more large companion pictures of such historical characters as Lincoln, Washington, Grant and Sherman, valued at over ten dollars, and will grace any school room. The first contest will occur at a social on Feb. 13th.—E. W. A.

ALPINE GRANGE.—At our meeting held Jan. 30, we adopted the following resolutions:

Resolved, That this Grange forward, under seal and signature of master and secretary, to our senator and representative at Lansing, that this Grange request them to use all their good powers to repeal the law that allows newspapers and periodicals to send their papers without order beyond the time of subscription. Also,

Resolved, That this Grange request our legislature, now in session, to make no change in our system of highway taxation.—C. WHEELER, SEC'Y.

LIME CREEK GRANGE, No. 712, is one of the new Granges of Lenawee county, organized one year ago the 22d of February. We are in a flourishing condition, have a fine new hall, 24x42 feet, a two-story building, finished and furnished ready for dedication the 24th of February. The Pomona Grange has offered to call a special meeting for the occasion. We entertain the farmers' club Feb. 13, and expect a large attendance. Brother Benj. Colgrove was with us at the last meeting, and gave a very interesting report of the State Grange, which report had been omitted at the installation on account of initiating candidates. We took in five members at the last meeting and balloted on more candidates. All very much pleased with the Grange edition of the FARMER, but would like to see more Grange correspondence.

By the way, when we began to agitate a Grange, the idea of a postoffice came to our minds, and by the aid of our Worthy State Master and others we are quite satisfied without the free rural delivery. We have a general store in connection with the postoffice.—W. G.

ONSTED GRANGE, No. 279, held installation service Saturday evening, January 10th, and although the night was stormy, twelve loyal Patrons from Wolf Creek Grange were present. All the officers-elect were on hand but three. Mrs. J. Driscoll, of Wolf Creek Grange, assisted by E. A. Taylor, installed the officers, using the new form. After the installation, supper was served in the dining hall below. Leading officers installed were, Master, W. G. Shepherd; Overseer, Bert Marlatt; Secretary, Julia A. Reed. The lecturer-elect, Frank W. Darling, has been detained from a number of meetings on account of sickness in his family. His father-in-law, Robert Worden, an old pioneer and an old-time Patron, passed away January 26th, and Sister Darling on the morning of February 1st. A rising vote of sympathy was extended to Bro. Darling and family in their affliction. Our Worthy Master has been appointed Grange deputy. Onsted Grange is striving to do better work this year than last.—JULIA A. REED.

BRANCH COUNTY POMONA GRANGE will meet with Girard Grange Thursday, Feb. 11, 1897, Girard Grange entertaining.

The forenoon will be given to the general work of the Order. All fourth degree members are invited.

The afternoon session will be public, and a fine literary program has been arranged for the occasion. Following is a partial list of exercises: Open with music, Girard

Grange choir; paper, "What we see and learn by travel," Marie Warner, Quincy; recitation, Annie Wiggins, Girard Grange; paper, "Beginning at the bottom," Mrs. D. D. Buell, Union; recitation, Mrs. I. A. Martin, Batavia Grange; paper, "Which is more to be desired in life, character or knowledge?" E. A. Greenamy, Coldwater Grange; recitation, Hazel Gardner, Girard Grange; question for general discussion, "Does the collection of farm statistics by the supervisors benefit the farmer?" opened with a paper by a member of Coldwater Grange. Girard Grange will furnish the music, which is a sufficient guaranty that it will be fine. Come out, everybody, and take part in the afternoon meeting.—WALLACE WRIGHT, Lecturer.

WESTERN POMONA GRANGE met with Ottawa Grange at Harrington, Jan. 28 and 29.

The afternoon of the first day was devoted to literary work. The following subjects were well discussed. "The business side of the Grange," "To what extent does the prosperity of the farmer depend upon legislation," and "What is the effect of the habit of success upon character?" Two excellent papers were also read on the subjects, "Habit" and "The supply and demand on the farm." The rest of the session was necessarily devoted to business. The leading officers elected were as follows: Master, M. M. Smith; Overseer, D. C. Wells; Lecturer, Mrs. H. J. Austin; Sec'y, Bertha Smith.

Brother Jason Woodman has just closed a very successful and satisfactory series of Grange lectures throughout the jurisdiction of our Pomona Grange and we feel that much good in Grange work was accomplished, as many outside the Grange claim they have a better and more thorough knowledge of the workings of the Grange. Much enthusiasm was also created within the gates.—SEC'Y.

A LOVE FEAST.

Hesperia Grange has been favored the past week by having Brother Jason Woodman, Lecturer of the Michigan State Grange, in their midst for two days.

Brother Woodman talked to an enthusiastic audience Wednesday, Jan. 18 in Grange hall. "Grange" was his theme. He conveyed to every mind the benefits of organization for the farmer. Everyone was delighted with him.

The following day the Grange society met with Brother and Sister Wm. Robertson where over fifty people met together and partook of a bountiful dinner, after which Brother Woodman entertained his eager listeners talking "Grange" and "Farmers' Clubs" and throwing in an occasional story to keep us in good humor.

Mr. Woodman is a pleasant and forcible speaker, a gentleman and scholar, was perfectly at home with us, and to say we enjoyed his company expresses it mildly. All departed for their several homes feeling it was good to be a Patron.

Thursday evening Brother Woodman, in company with Brother Wm. Robertson, drove to Grange hall where the unwritten work was exemplified to a hall full of Patrons.

The result is this: Nine applications for membership were read last Saturday and one rein stated; a determination to do better work than ever before; to keep in touch with our noble Order whose precepts lead us on to higher and better conditions in life. Long live "our Jason."—M. R.

LENAAWEE COUNTY GRANGE NOTES.—There are now 18 active Granges in the county.

Rome, Lime Creek, Adrian and Ogden Granges have new two-story halls in process of construction.

At a recent meeting of the County Grange \$50 was placed at the disposal of the executive committee, to be used for the benefit of the Order in the county.

A series of Grange lectures under the county system is contemplated.

Six new localities are being solicited for new Granges.

Doubtless the first Patrons' mutual fire insurance company in Michigan will be organized in Lenawee county.

Of the 18 Granges in the county, 10 own halls of their own in the country, one meets in a vacant academy building near a small village, one in the second story of a cheese factory, one in the second story of a township hall, and five rent halls in small country burgs.

A CHALLENGE FROM HAMILTON GRANGE.

If there is any Grange anywhere that is better than ours we do not know it, and until we are convinced we will not believe it. I, therefore, challenge all Granges to a comparison on the past year's work. From the annual reports of its officers I collected the following facts relative to our Grange:

Total number of meetings during the past year, 52 (one every Saturday night).

Total attendance, 2,136; largest attendance, 115; smallest attendance, 17; average attendance, 43; membership reported Sept. 30th, 135; initiated since, 14; total membership, 149.

An addition to our hall costing \$226 was built this year, the upper part for a stage and the lower part for a playroom for the children and other purposes. The building fund has been wholly raised by social and literary entertainments and but \$35 remains unpaid.

The receipts of the first drama presented were over \$40, which went to Moran, the scenic artist, for new and beautiful scenery. We bought our binder twine of Eagle.

We entertained some "fresh air" children.

We celebrated the 4th of July.

We organized an exchange Lecture Course in five Granges.

We had at our grounds a township fair that was attended by thousands of people (it has been running for 20 years).

We are all plain farmer folk, but one of our number is a member of the present legislature.

We have had a meeting on every Saturday evening in the past four years, except four.

Now, Patrons, if you do not take up the gauntlet and prove that you have done better we shall assume that you have not, and that Hamilton is at the front.—A. W. H.

LENAAWEE CO. POMONA GRANGE enjoyed the hospitality of Rollin Grange on Thursday, Feb. 4th. An interesting and varied program was given. It was decided to meet with Lime Creek Grange, Feb. 24th, and help dedicate their new hall and transact such other business as may come before the meeting.

The resolution to receive new members biennially was stricken from the record. Installation of officers followed. Several brothers and sisters joined Pomona Grange.

Last year this Grange offered a resolution and appointed a committee, asking each supervisor in the county to assist in making the salaries of county officials tally with the diminished finances of the taxpayers in so far as the law permits. Unhappily, one or two mistakes were made in the new departure by the supervisors, thereby giving those interested in having their salaries maintained at the old standard an opening for objections, and they are calling to their assistance whom they may be able. The majority of the board of supervisors voted that they receive a per diem of \$2.50 instead of the legal rate of \$3, and many of them only took the reduced rate. To such as were faithful to the taxpayers and the people, a resolution of thanks was given, and adopted unanimously.

A resolution was also adopted asking the support of all, including our State legislators, to the bill making the full pay of all county officers by salary, and that all fees be turned into the county treasury. It was desired that all Granges and farmers' clubs in Lenawee county take into cognizance these two resolutions, as some have already done.

THE MICHIGAN FARMER, as our Grange organ, was spoken of, and it was hoped that all Granges in the State who were financially able, would see that every family in their Grange has the FARMER, as it always happens that when left to themselves those who most need the Grange paper are the ones who do not take it.

Let all friends of the Grange in Lenawee and Hillsdale be at the dedication of the Lime Creek hall, six miles south of Hudson, on the 24th.—E. W. A.

TAXATION.

At Last State Grange.

Chairman of Committee on Taxation at State Grange submitted the following report, which was adopted:

PATRONS:—Among the vital questions of the time none have a deeper interest than taxation, for by its aid governments flourish, institutions of learning are founded, the dependent and criminal classes are properly cared for, municipalities are governed, justice is administered, and under an equitable levy all are benefited thereby. From the time when tribute was first levied by the strong upon the weak, down through the systems prevailing under monarchical governments to the present time, when taxation is largely levied by the people upon themselves, there has never been an ideal method inaugurated; there has been no lack of honest intention among those who frame the laws, but custom and preceding laws have always exerted a powerful influence in their enactment. That system which has for its fundamental principle a method of taxation that lays the burden upon persons and corporations alike and in assessment and collection costs the least, is nearest to what all are desirous of obtaining.

It is, perhaps, unfortunate that any revenue law, no matter how wisely planned, cannot be so drafted as to accommodate itself to the rapidly changing conditions that are constantly taking place in this inventive age. The methods of transportation are always changing, and at the same time altering the social and economic condition of the people. Methods of transacting business are keeping abreast the times. Aggregated capital now occupies the field once held by individual enterprise. Knowing this to be true, we believe the time has come for a radical change in the tax system of this State; the many incongruities and inequalities that exist are so unjust as to cry aloud for redress. Were every individual unselfish, ready and willing to bear his proper share of the burden of taxation, the present system might render further service, but the present system is not only liable, but is continually put to constant and systematic abuse. The records of the assessment and the equalization by supervisors, as analyzed by the statistician's report, places this fact beyond question. The real and visible property is greatly overburdened, while capital, money and all personal estate are greatly undervalued, or not assessed at all, and thus escape the public burden. It is hardly possible to remedy this without radical changes, not only in the present law, but the constitution itself must be materially altered before the supreme court will uphold any such meritorious law as the inheritance tax law that by a specific tax, sought to relieve real and personal property. This decision has established the fact that no specific tax can be levied for the support of the State government, but must go to the townships and counties, as is the case with the liquor tax. We believe that with the constitutional restriction removed, repealing the clause, directing all

specific taxes to be applied to the school fund; then by applying the liquor tax and a judicious system of fees, a sufficient sum will be raised to maintain the State government without assessing either real or personal property, and will not interfere with the primary school fund. The investigation by the tax statistician establishes the fact beyond controversy that rural real estate bears more than its due proportion of the expense of the State government. Of the \$952,902,641 assessed in 1895, the rural districts were assessed \$492,931,175, while the cities and villages were assessed only \$460,971,466 the same year, the census reports for 1894 showing the true value owned by farmers to be but 2-5 of the whole amount, and they are only 46 per cent of the population. Another discrimination of which we have a right to complain is that the State board of equalization places a valuation of from \$25 to \$40 per acre upon lands in agricultural counties, while lands in valuable timber counties are equalized at from \$1 to \$5 per acre.

Then, again, the discrepancy in assessing the personal property by supervisors. We find, for example, the bank stocks and deposits in our larger cities nearly equaling the entire personal assessment of the city in which they are located, and we especially call your attention to the remedial legislation proposed by your committee. The proportion of taxes paid by corporations is an outrage upon the small property owners of the State, and we urge that the incoming legislature take vigorous measures to remedy this great wrong. To illustrate, your committee find that a corporation owning a toll road running into the city of Detroit refused \$35,000 for two and one-half miles of the road, and the taxes that year paid into the State treasury were only \$103.02. That this is not confined to locality is only too true. In one of the Upper Peninsula counties a corporation filed a sworn statement with the Secretary of State that they had in the county property valued at \$1,250,000, but they were only assessed at \$30,000. In another northern county corporate property valued by the owners at from \$300,000 to \$500,000 did not appear on the rolls at all.

The Auditor General's report for 1895 shows that the total tax paid by telegraph and telephone companies organized and doing business under the laws of the State with a capital amounting to nearly \$2,000,000 amounted that year to \$38,821.82. Compare these instances with an equal amount of real estate and the injustice can be readily seen. This might be pursued to greater length, but your committee will only refer to railroad corporations, and no better illustration of the abuses can be used than the S. H. & E. R. R., in Van Buren county. This railroad is entirely in a farming county, and is a fairly good paying road. The railroad commissioner's report for the year 1894 shows that the taxes paid by this road amounted to \$420. As shown by the railroad commissioner's report, the tax-rate on farm property averages 1 per cent in the county, and the village tax through which this road runs will average 2 per cent. The railroad was sold at auction that year for \$100,000. Taking that as a basis, the rate on \$1,000 would be 42 cents, while village property paid \$20 per thousand and farm property \$10. That railroads in Michigan do not pay in proportion to railroads in other states these figures, taken from the railroad commissioner's report for the year 1893, are given:

State.	Taxes per mile of road.
Michigan.....	\$ 106.83
Iowa.....	157.93
Wisconsin.....	217.15
New York.....	921.73
Illinois.....	921.73
Massachusetts.....	361.94
Minnesota.....	1,543.07
Missouri.....	178.72
Nebraska.....	147.03
Kansas.....	209.33
Connecticut.....	203.20
Ohio.....	587.42
	278.87

This group of states represents the different portions of the Union containing railroad corporations that are doing business in our State also. The tax-rate of Michigan is the lowest, and to compare the rate per cent of railroad taxation with that paid by other kinds of property in the State would simply be a farce.

Are we willing to permit this to go on without endeavoring to right this great wrong? Your committee do not believe you will suffer it without protest, and therefore would respectfully present the following suggestions:

We do not see any prospect for a material reduction in State expenses, so long as the State maintains its educational, charitable and penal institutions at their present high standard. We do not believe the Grange nor the class of people of which Patrons are members have or will ask from the managers of our public institutions any stricter and closer economy than other large enterprises demand in order to maintain themselves. We have a right to demand that, and we would not be true to ourselves did we not insist upon it.

And in furtherance of this we recommend that bank cashiers report their time deposits the same as bank stock and subject to the same restrictions. That the constitution be so amended that specific taxes may be turned into the general fund. And in this connection we call your attention to the rapid increase of indebtedness of the State to certain trust funds, notably the primary school fund, which is increasing rapidly, and the time is not far distant when the State will have to provide additional revenue for the payment of interest upon those funds. That a law be enacted that will provide for the licensing of professional and business avocations, and that at present the revenue be turned into the township, city and county treasuries. That the rate of specific tax on corporations be raised in certain cases, and in others the method changed. That the

inheritance tax law be re-enacted with such changes as will remove the objections raised by the court.

That we favor a change in the present tax law, making it obligatory, instead of optional, upon the assessor to examine each person under oath as to the amount of his property.

That all county officials be paid in full for their respective services by stated salaries fixed by the respective boards of supervisors, and that it be made a criminal offense for such officials to receive any fees or other perquisites in addition to their salaries. Further, that the fees collected in county offices be readjusted on an equitable basis, and that hereafter all such fees be turned into the county treasury and become a part of the general fund.

That a more economical and effective system for the collection of taxes upon non-resident lands must be devised.

That we believe it to be to the interest of the taxpayer to adopt the county system of assessment and collection of taxes, doing away with the present board of supervisors and creating in its place a board of county auditors; and ask that the constitution be so amended.

E. A. Wilkey, chairman, E. T. Borner, Neil Munroe, James Murray, T. E. Niles, Stanley McPherson, L. C. Root.

FARM STATISTICS.

Noticing by the Legislative Journal that there has been notice given that there would be a bill introduced for the purpose of repealing the statute governing the gathering, compiling and publishing of farm statistics, it leads me to think there are other localities, as well as Hillsdale county, interested in the reduction of taxation.

There was a petition quite extensively circulated in the county of Hillsdale, that embodied the same purpose, and I have yet to learn of the first person who refused to sign that had an opportunity, and am satisfied that at least ninety-nine per cent of the taxpayers in this county are in favor of repealing the law.

There are a great many who think they derive no benefit from the statistics, and in fact think no one, unless it would be some one that was dealing in options, could be benefited by them, and are inclined to make a report that would be misleading rather than one that would be correct, for that reason.

I think they are like a great many other documents that are published by the State and sent to the county seats by the ton, and there left to accumulate until they have to be used for fuel in order to make room for more or new ones.

There is not one man in fifty who is compelled to make reports to the supervisor who ever sees or hears from them again, and if they were correct and of some little value, I do not think it possible to find a man who thinks them worth what they cost, even if it be no more than the compilers claim them to cost.

Any good business man would say that if he was not benefited by an investment or any particular line of business to the extent of cost of same, he would not follow it long, and think it should be the same with our State. The statute was made when people could better afford it than they can to-day, and it seems to be one of the luxuries that the profits in business cannot support at the present time.

I think if the members of our legislature had taken the assessment last spring, they would have learned the reason for complaint and what the feeling is among the people that are burdened with taxes and how the average farmer is situated financially. With small farms and large mortgages, and with small prices for produce it is impossible for them to meet their obligations. There should not be any opposition to the bill.

O. B. LANE.

HILLSDALE CO.

GENERAL TOPICS FOR FEBRUARY.

PROSPERITY.

QUESTION 1.—What proportion of the general prosperity of this nation, past and present, is due to each of the leading industries of this country?

QUESTION 2.—Would the causes that produced prosperity in former years have similar effect at the present time?

SUGGESTIONS.

Question 1.—In discussing this part of the topic it will first be necessary to determine which are the leading industries of this country, and these would seem to be agriculture, manufactures and mining, their relative importance being in the order in which they are named, but the proportion which each bears to the other and to the prosperity of the nation, is to be determined by study and investigation. In this connection a few statistics may be of some value in arriving at just conclusions.

The following from the fourth *Quarterly Bulletin* under the November topic "The Farmer," may be of value in this connection.

"All of the tangible wealth of the United States amounts to a little over sixty-five billions of dollars. The value of all the farms of the United States is a little over thirteen and a half billions of dollars, and value of implements and stock is over two and a half billions, making a total valuation of all farm property over eighteen billions or considerably more than one-fourth of all the wealth of this country."

To this might be added the value of yearly farm products amounting to two and one-half billions of dollars. It may be interest-

ing to note that the annual production of corn, wheat, oats, barley, rye and buckwheat amount to a little more than three and one-half billions of bushels. Of this enormous amount corn furnishes in round numbers over two billions of bushels, wheat four hundred and seventy millions, oats eight hundred and nine millions, barley seventy-eight millions, rye twenty-eight millions, buckwheat twelve millions. The number of horses in the country in 1890 was over fifteen million, cattle fifty-seven million, sheep forty-one million, swine fifty-seven million. Number of pounds of wool raised, one hundred and ninety-one millions. Pounds of butter made, one billion twenty-four millions. Pounds of cheese made, nineteen millions. Number pounds of cotton raised, three and one-half billions. Pounds of tobacco raised four hundred and eighty-eight millions. Pounds of sugar produced, three hundred and one million. Space will not admit of an enumeration of all the products of the farm. No mention is made of fruit, poultry, and many other articles that enter so largely into the list of productions of diversified farming. But enough statistics have been given to enable us to get some idea of the magnitude of the agricultural interests of this country.

The capital invested in manufacturing amounts to a little more than six and one-half billions of dollars. The number of laborers employed is a little less than five millions. The yearly wages paid these laborers in 1890 amounted to two and one-fourth billions of dollars. The cost of what is called raw material was one and one-fourth billions of dollars, and the finished product was valued at nine and one-third billions. The amount of capital invested in the leading articles of manufacture is in round numbers as follows:—Lumber, four hundred ninety-six and one-third millions of dollars. Cotton goods, three hundred and fifty-four millions. Distilled and malt liquors, two hundred sixty-three and one-half millions. Agricultural implements, one hundred and forty-five millions. Woolen goods, one hundred and thirty-one millions. Mark the amount invested in the manufacture of liquors.

The amount of capital invested in mining is estimated at one billion three hundred and forty millions of dollars, and the total value of the annual product is five hundred and eighty-seven millions of dollars. Number of laborers employed, six hundred and thirty-seven thousand. Wages paid, two hundred and sixty-five millions of dollars. These statistics are given on the basis of values and prices in 1890. A little arithmetic will give approximate values and prices at the present time. The object of this question is to enable us to obtain a better understanding of the magnitude of the resources of our country, and the relative importance of agriculture in these resources. In this discussion it should be observed that there is a very close relation existing between these industries, and this point should be carefully considered in determining the relative importance of each in regard to the general prosperity of the country.

Will the Lecturer give an abstract of the discussions?

In considering the second part of this topic, it will be well for members to carefully note the conditions in this country and abroad during its years of greatest prosperity, and to ascertain what conditions were most favorable in this direction. This will take some study and investigation, and it is quite possible that all may not be agreed as to some of the causes which produced a given effect. This will provoke friendly discussion and make the question of greater interest.

Sometimes we hear sordid and narrow-minded people say "we want a return of the prosperous war times!" But God forbid that we should ever have a return of such times in this country. The wealth of the world could not pay for the personal sacrifices and rivers of blood which were freely given that these United States might continue to be one great undivided nation. Then again from a national standpoint we cannot call "war times" prosperous times, financially, for with one-half the nation it was a terrible season of adversity and the condition of thousands of people in the war-stricken portions of our country was changed from affluence to poverty. This great epoch in our nation's existence should be studied in the light of history, and its bearing upon our social, economic and financial conditions, past and present, should be carefully noted. The second question opens up a very interesting field for discussion and an abstract should be sent to the State Lecturer.—*National Grange Quarterly Bulletin*.

ILLINOIS GRANGE NOTES.

Buckheart Grange, Fulton Co., is considering ways and means to build a new hall, and is urging the lessons of organization among the farmers. Orange Grange, Peoria Co., made \$50 on a public literary entertainment lately. J. E. Seller, of Wabash Co., is working for Grange extension in Wayne and Lawrence counties. Hazel Ridge Lodge, F. M. B. A. sends the Grange a greeting from White Co., and is working on similar lines for the betterment of farming. C. S. Booth, of Camp Point, will read a paper on farmers' organizations before his county farmers' institute, calling special attention to the principles and work of the Grange. Dunlap Grange is adding \$50 worth of books to its library. Bethel Grange, Schuyler Co., is stocking up with new books, has printed a handsome letter head for official correspondence, and is doing good work for the farmers. T. S. Raymond reports a continuance of interest, activity and growth in Sydney Grange. Tonica Grange, Labelle Co., rallied in

sleighs, sleds and hickory jumpers, in a snowstorm, to install officers, eat oysters, discuss farm questions and spend a social winter day at the home of L. A. Burgess. Miss Emma Mudge is secretary of that Grange, also of the county Grange and the county farmers' institute. The State Grange of Pennsylvania endorses the Lubin proposition for an export bounty on grain, as an offset to the farmers for the protective tariff levied on imports for the benefit of manufacturers. Our State Grange resolutions for woman's suffrage, free rural mail delivery and postal savings banks have been laid before both houses of Congress, and of the resolutions sent to the State legislature three have been formulated into bills, now pending; they are for a two cents per mile passenger rate on railroads, against free passes to public officers, and for reducing the legal weight of ear corn from 70 to 68 pounds per bushel. All farmers are urged to support these measures. A few days ago Arthur Coale reorganized National Grange, No. 980, McLean Co. Major E. A. Giller, Past Master of the State Grange, is still active in our Order; he is booked to read papers before the farmers' institutes of Greene and Morgan counties. Hawthorn Grange, Fulton Co., has received six new members, also some dormant members. The strain on farmers, through low down prices and high taxes induces them to organize to seek for relief. Wm. Jamison is pushing Grange work in Vermillion Co., and J. F. Denton in Montgomery county.

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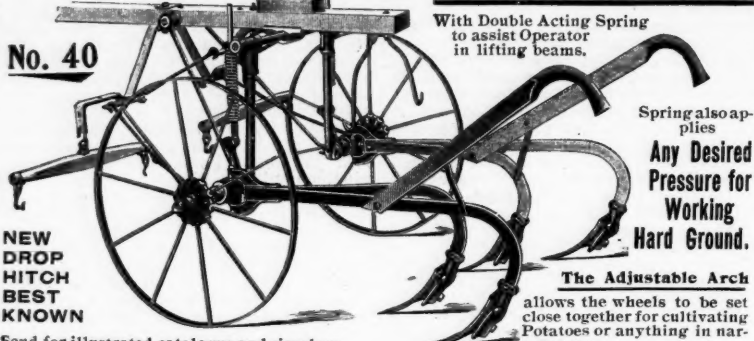
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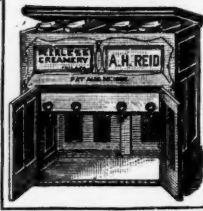


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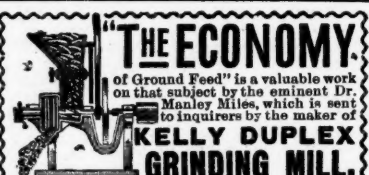
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